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The Doctor of Tomorrow

Drinking Water and Water Drinking

Anginal Paroxysms During Anesthesia

The Papyrus Ebers

If I Had a Million

How I Jugulate Pneumonia

The Treatment of Bronchitis

STORAGE

The American Journal of Clinical Medicine

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DEVOTED TO ACCURACY, DEPENDABILITY AND HONESTY IN EVERY DEPARTMENT OF MEDICINE AND TO THE SAFEGUARDING OF THE DOCTOR

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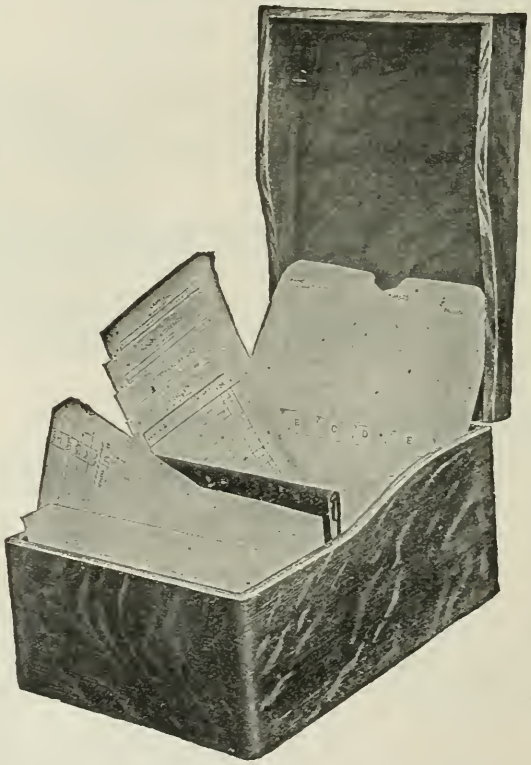

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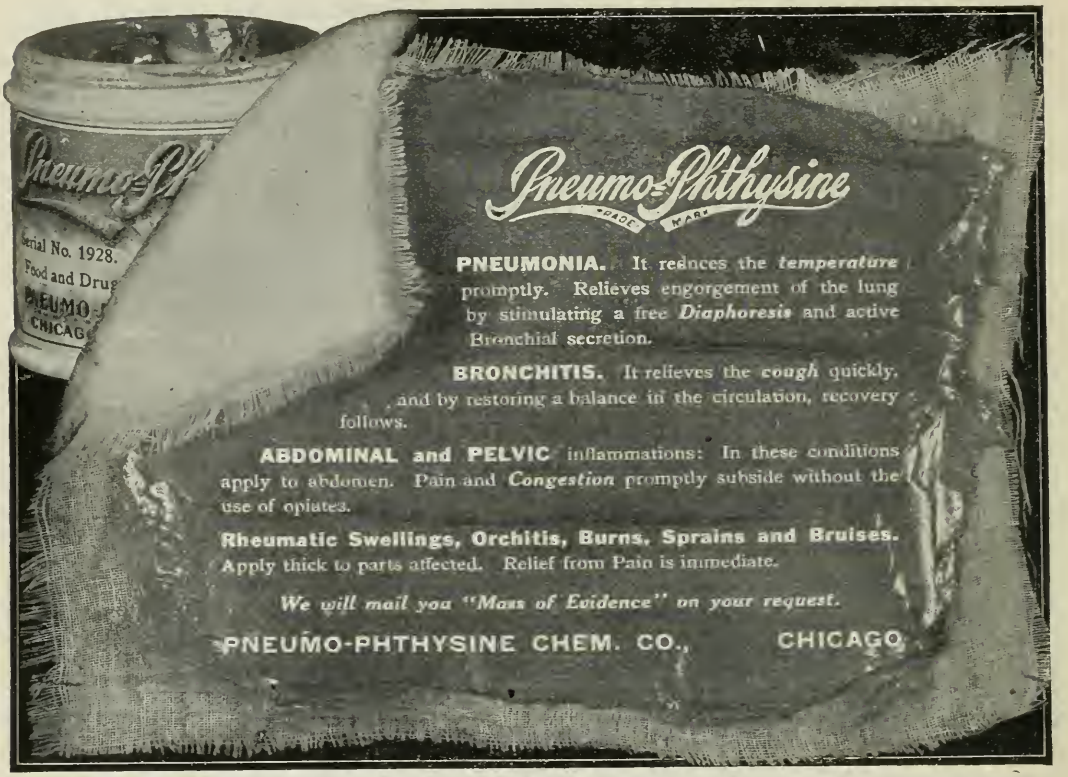

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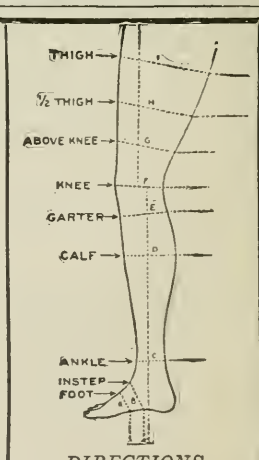

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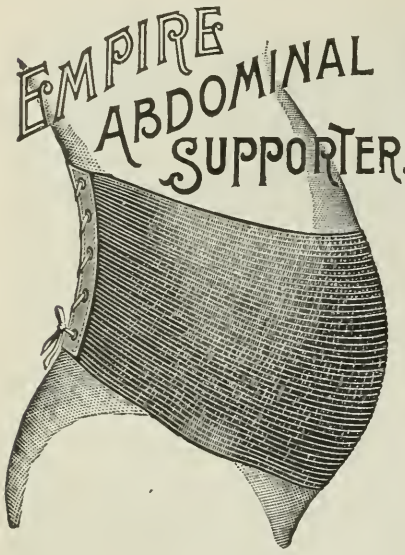

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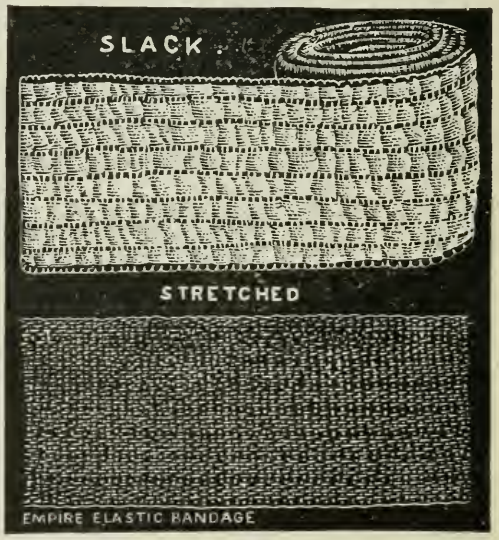

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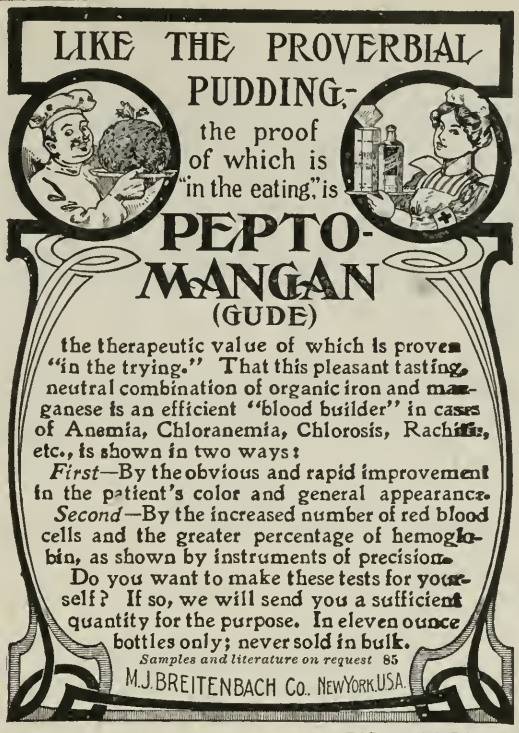
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Contentment—Satisfaction

THE other day I saw Maeterlinck's "Blue Bird," which had been playing in Chicago for some time. I did not know what I was to see, going merely for the purpose of obtaining mental rest. While I was successful in this purpose so far as rest consists in a change of occupation, my thoughts were engaged very closely in the problems suggested in the lessons taught by Maeterlinck's great play.

To one who has watched the crowds flocking to such extravaganzas as "The Wizard of Oz" and its varied successors, it appears rather strange that a play like "The Blue Bird" should have any success at all in Chicago; and that it does run with full houses proves that, after all, Chicago does more than just make money and spend it in the most pleasant and pleasing manner imaginable.

The story of "The Blue Bird," in brief, is this: Two children of a French peasant couple are tucked into bed the night before Christmas. The light streaming from the brilliantly illuminated house of their wealthy neighbor awakens them. Shortly after, they are visited by a fairy, who introduces them to the personifications of animals and things—their Dog, their Cat, Fire, Water, Bread, Milk, Sugar, and so on. These are to accompany the boy and girl in their quest for the blue bird, that is to say, the bird of happiness (I should rather say, contentment), which does not change its color when struck by the light of the sun—that is, on closer examination, as do many birds that look blue in artificial light but do not bear scrutiny by daylight.

Under the magic power of the fairy the two children are permitted to go into the land of the past and into the land of memory. They visit their grandparents, who have been dead for some time, in their present abode, and there find their little brothers and sisters who also had preceded them into the land of the past. The bird which they find in their grandparents' cage seems blue, because the old folks and the little children there are contented, but when our little pilgrims carry the bird away they find that its hue has changed.

They also visit the dead in the graveyard, without being successful in finding the coveted bird of contentment. They visit the land of the unborn children who are sent to the world day by day as the time has come for each one, Father Time with his hourglass and scythe calling for them in his big ship, repulsing the eagerness of those who are overanxious to go before time, urging those who are holding back, and encouraging those who are ready to depart.

The children then visit Night, who is the keeper of all the secrets and who has hidden away among many other birds the Blue Bird but tries with all her power to prevent the children from finding it. Having the authority of the fairy and having received the secret that man has the right and the power to demand from Night that the doors to all the secrets be opened if they insist, the brother of the two little searchers for the bird of content overcomes his fear and opens one door after the other, without,

however, finding the blue bird which will not change its color.

Life, who has been their guide throughout, finally takes them back to their own little cottage and bids all their other companions—Fire, Water, Bread, Milk, Sugar, and all the rest—to say farewell. They all assure them that, although after this they will not be able to talk to them, they still will be as anxious as ever to aid them, to assist them, to be of use to them.

The last scene discovers the children tucked up in their beds, fast asleep as they had been seen in the opening of the play, and the mother comes in to awaken them. She naturally is astonished at the queer conversation of the children, who refer to the journey which they have taken and to the things which they have seen, and she becomes frightened, fearing that these two children, which are all she has left, will be taken from her the same as were the other ones.

In their conversation the children glance at the bird hanging in the cage of every peasant home in France, however lowly, and suddenly discover that it is blue. Their conversation and talk is cheerful, happy and contented, and they communicate this contentment to their neighbor, who happens to come in and tells about her own little girl sick in bed and says she will die unless she finds the blue bird of happiness. Thereupon the two children send their own bird, and, by a miracle, the neighbor's little girl recovers and comes to visit them and to thank them for having given her happiness. As the little boy tries to show his neighbor how to feed the bird, the latter escapes. But the lesson they have learned remains.

The play closes prettily with the boy's telling his friend that he will find the bird again, whereupon he turns to the audience, "And if any of you should find the blue bird that does not change its color in the sunlight, won't you please give it to us, because we shall need it later on."

I have said that I prefer to call the blue bird the symbol of contentment rather than the symbol of happiness, because happiness, after all, lies in contentment. The play is "different," and at first somewhat startling in its different-ness, but as it proceeds and develops, and as we follow it attentively, the lesson comes home to us that contentment is found among those who accept what they have and make the best of it, striving for legitimate benefits and advantages, being satisfied with that which can be obtained and without foolishly striving after and fretting for the unobtainable. Wishing for the moon has never brought anybody happiness. Making the best of what we have and striving for better, being thankful and satisfied in the striving, has been the source of contentment to many.

Yet it seems to me that a word of warning is necessary. To be contented does not mean to be satisfied. In the Old World, where society is arranged in certain definite social strata, there is an unwritten law that men should accept as part of the Divine plan the state in which the Almighty has been pleased to place them. In this state, in the homes of their ancestors, doing the work that they have done, living the lives that they have lived, they should seek contentment and happiness.

But there is no such law in America. We know that satisfaction—or contentment, as so many are pleased to call it—means stagnation—decay—death. We are driven on and on, not by the search for happiness, but by the inner fire of ambition which impels every man whose soul is not the soul of the clod to get out of himself every possible resource that the Almighty has put into it.

"The work is good enough." No, it is not; you can and will do better. "My patients recover—why should I seek better methods?" The answer is: Because your capacity is not half developed and you have it in you to climb the ladder to the top, instead of resting in nonproductive content half-way up.

Be content with the material things which are given you; don't be a kicker, a "grouch" or a misanthrope; but, in God's name, if you are a real man, be not satisfied with the spiritual factors that enter your life and determine your career. There are things more worth while even than what men call "happiness."

"The early boy gets the knot-hole."

WHAT IS A QUACK?

That it is not always safe to call a competitor a "quack" has been demonstrated in England by Dr. E. F. Bashford, director of the Imperial Cancer Research Fund, of London. Some time ago, in an article published in *The British Medical Journal*, Dr. Bashford applied this epithet to Dr. Robert Bell, also of London, who in published articles had described a method of treatment of cancer by a nonsurgical method which he believed to be curative in certain malignant conditions, and

so stated. Dr. Bell resented being called a "quack" and instituted suit against Dr. Bashford. He was awarded ten thousand dollars damages for this published reflection upon his good name and professional standing.

Whether Dr. Bell has really discovered a cure for cancer, or not, we do not know. The probabilities are that he has not, but we confess to a feeling of sympathy for him, and for this reason: It is altogether too easy and too common for men who occupy high positions in the medical profession to cast aspersions upon those whose methods of treatment and modes of thought fall outside the beaten paths which they and their more orthodox fellows believe the only truly scientific paths.

The words "quack" and "charlatan" imply dishonesty and ignorance. But if men merely think otherwise than we do, it by no means follows that they are dishonest or ignorant. We have learned so much, through all the ages, from those who have acquired their knowledge of life and nature outside the sources laid down by the schools that it is high time we developed the broadness of viewpoint and the scientific charity that would make it impossible for us to use these opprobrious terms in connection with honorable, intelligent men.

The word "quack" has always been used altogether too freely. Paracelsus was dubbed a quack. So was Mesmer; so was Jenner. Time was when to the regular profession every homeopath was a quack; and so were the disciples of Samuel Thompson and the followers of King and Scudder. Now there are few men in the profession who refuse to acknowledge their obligations to those men, and the ideas for which they are responsible in large measure have been incorporated into established medical thought and practice.

The hated rebel, who stands alone in one generation, becomes the hero or demigod for those which follow. In the inevitable progress of evolution this process of rebellion and absorption must continue, or stagnation will come. It is going on now, and men like Bell in England and Still in America are doing humanity a real service—even if we refuse to admit a fact that is palpable to intelligent and unbiased laymen. Other "rebels" are doing an even greater service in the reform of our materia medica, though they may fail of official recognition.

What, then, is quackery? Quackery is not a method of thought or a scheme of practice. It is *pretense*, and that is not bounded by sect or limited to the ignorant. It is even more dangerous when it occurs surreptitiously in high places—as it often does—than when its deceit is displayed so boldly that it can be readily recognized and as readily assailed.

The man who has new or novel ideas may be ingorant or foolish and his ideas may be worthless—but he is not a quack. The wise man will look those ideas over carefully before rejecting them and seize upon and absorb any that seem to him good.

We live our lives and do our work—our very best work—not so much for ourselves as for the approval of those—usually some *one*—to whom we are genuinely attached.—W. C. Abbott.

CHISELS—AND BOILS!

A chisel is a useful implement when a chisel is needed, but not all the brain-power of masculine humanity ever succeeded in convincing one single woman that a chisel is not a screw-driver.

Calcium sulphide is a remedy of primary value; yet it is no panacea. Opinions on its utility and range of application vary over wide limits, from the belief in its efficacy as a germicide in every known parasitic disease to the grudging admission that it may be "good for boils."

Certainly calcium sulphide is good for boils. It attacks the invading staphylococci, and when the patient's body is so saturated with the sulphide as to give off sulphurous odors from the skin, the microbes turn toes up and die. Still, this is not all there is to the treatment of boils. Even the possession of such a therapeutic certainty does not relieve the doctor of the necessity of studying his patient.

A woman was affected with these troublesome manifestations of cutaneous mycosis—had boils, and boils, and more boils. She exhausted the local professional talent and then sundry specialist consultants; then, finally, encountered a man who comprehended modern therapeutics.

This up-to-date rational therapeutist saturated the sufferer with calcium sulphide, and soon the boils dried up; but as soon as the remedy was discontinued the malady reappeared. An investigation showed that the woman was constipated, anemic and debilitated. The provisional diagnosis made was that her blood was traversed by a strain of fecal toxins, lowering her vital resistance to such a degree that at the point of lowest vital resistance the ever-present microbes effected a lodgment, and, as this proved to be in the skin, a boil resulted. The calcium sulphide would kill that brood of germs, but,

the original condition and the debility remaining, reinfection followed.

The woman now was given a saline laxative; also a little iron sulphate before each meal. Two boils were then rising, but these aborted, and within one week the troublesome sequence had come to an end—this, after she had suffered from the respectable number of 149 of Job's comforters. The results of treatment, therefore, went to confirm the tentative diagnosis that had been made.

The great moral awakening will be permanent only as it rests upon the deep heart-purpose of our men and women to be pure.—D. Ogden.

THE PLANT ROLE OF THE ACTIVE PRINCIPLES

The role played by the alkaloids, glucosides, and other specific principles in plants is little understood. It has repeatedly been pointed out in these columns that they are in the plants for the latters' use, and not primarily for that of man; but this truth seldom seems to be realized.

Peche asserts, for instance, that the prussic acid of the cherry-laurel is stored as a plant-food. Peyer showed that the acids, oils, alkaloids, glucosides, and other proximate principles protect the respective plants by repelling the attacks of rabbits, snails, insects, and other depredators. Volatile oils repel grazing animals. Acids are toxic to snails and slugs, as well as being at least disagreeable to rabbits. The leguminous seeds contain some principle that is distasteful to mice and rabbits—and this reminds us that the early herbalists found in the bean-pod a valued remedy. The roots of the cereal grains contain an acid that repels snails—and here again, if they were investigated, we might find that the alkaloid discovered in minute quantity in the grain of the oat exists in appreciable proportions in the root and could be utilized. So, also, as to the cerebral stimulant found in the seed of the peanut. That delightful exhilarant might well prove of therapeutic efficacy.

Every poison is such because it contains a principle that affects one or more of the functions of the body. It modifies this function in some direction, enhancing, depressing or otherwise altering it. When we have ascertained just how it thus modifies this function, we are prepared to administer that principle whenever we find such disorder of the bodily functions as may be remedied by the action of this substance. It follows that every poison may be utilized as a remedy if we know exactly what it will do, and we have so studied our cases as to recognize the need for exactly that modification.

No two cases of the same disease are precisely alike, and in the many variations presented pathologically we find reason for utilizing the corresponding variations in the groups of allied remedial agents. Since there is a difference in the nature and activity of morphine, codeine, narceine, as in that of chloral, chloramide, sulfonal, trional, tetronal, veronal, etc., it follows that for each of these and other hypnotics there are corresponding cases where each is better fitted than any of the others.

Ask the modern dentists why he has discarded the ancient turnkey and employs instead a separate forceps for each tooth, or why he has the innumerable variety of delicate little instruments that strike terror into the patient; and he will tell you that for each of these there are uses for which it is better fitted than any of the rest. So much the more does this apply when we come to intervene in the workings of the infinitely complex machine, the human body.

THE RELATION OF TONSILLITIS TO ACUTE NEPHRITIS

It happens with reasonable frequency that an acute nephritis develops in connection with, or as a sequel to, an apparently harmless angina tonsillaris, and that this acute nephritis, manifested by albuminuria, heals promptly when the causal tonsillitis has retrogressed, although it may occasionally become chronic.

The nephritic symptoms in such cases are only rarely definite. Edema is not frequent, only at first the face may be slightly puffy, although it does not remain so. The amount of urine is not usually diminished, at least not for long; uremic symptoms are at most indicated during the first few days. The principal symptoms are albuminuria and hematuria; the sediment contains casts on which red and white blood-cells are to be seen; renal cells are found occasionally, but not for long. A characteristic sign is the early rise in the blood pressure (130–140 Hg. during the first four or five weeks).

In the absence of marked clinical, especially objective, symptoms, such cases of nephritis are easily overlooked, and undoubtedly often heal without any treatment. However, they probably contain the beginnings of many severe cases of nephritis and which may become clinically manifest only after years.

According to Hans Eppinger (*Wien. Med. Woch.*, 1912, June 8), it is probably particularly the socalled secondary atrophic kidney which frequently takes its inception in a protracted nephritis of this origin.

Eppinger relates the histories of three cases of acute nephritis, all of which had occurred in consequence of angina tonsillaris and which had been under treatment for about four months or longer without showing any improvement in their condition, so that the establishment of chronic nephritis had to be anticipated. In all three cases the tonsils were not only enlarged but they were also honeycombed [*zerklüftet*]. In one case a repetition of the acute angina had recently been observed and at the same time the objective symptoms of the acute nephritis had been much aggravated. The tonsils in their deeper layers were transformed into abscesses, which were filled with ill-smelling pus.

Eppinger removed the affected tonsils in these three cases and noted a surprisingly prompt improvement in the condition of the kidneys. Albuminuria and hematuria disappeared in one case within two weeks, in the other two cases in not more than one month; and the nephritis could be considered as healed.

The author advocates the extirpation of the tonsils in all cases of acute nephritis which present a history of acute tonsillitis and where the tonsils show enlargement and perhaps honeycombing.

The author further calls attention to the fact that tonsils which do not look suspicious on inspection may contain large abscess cavities in their interior, and points out the fact, already well known, that other diseases like rheumatism, endocarditis and even sepsis frequently are much improved after the extirpation of the tonsils.

GLONOIN, ATROPINE, AND STRYCHNINE IN SHOCK

One of the acute observations made by Burggraeve was of the eternal contradictions made by clinicians as to the effects of drugs. This he attributed to the varying components and powers of the crude-plant preparations.

Still, this is not the whole story. We have made great progress in eliminating this element of uncertainty, by separating the active principles from the inert constituents of the plant and from each other, so that each distinct principle may be administered in a state of chemical purity.

On these we base reasonable expectation as to the results to follow. The effects following the administration of one grain of opium may be either identical, similar, or antagonistic to those following the ingestion of any other one grain of opium; the influence exerted by one centigram of morphine, however, is precisely the same as that exerted by any other dose of one-sixth grain of morphine.

But this fact is only a part of the problem, which, like most life-problems, is by no means so simple. By the use of single active principles we remove one important source of therapeutic uncertainty; however, there remains to be considered the varying conditions of the patient that modify his reaction to the remedy. Victims of delirium tremens have taken with impunity doses of digitalis as much as one hundred times larger than what would kill a uremic.

A curious example of contradiction appears in *The American Journal of Surgery* for last October. Dr. G. Frank Lydston, writing of shock, there says:

"Digitalis and strychnine injected hypodermatically are, as every surgeon is aware, of greater or less service. I would suggest that, where strychnine is given in cases of severe shock or suspended animation, the dose should be a large one. One-fifteenth to one-tenth of a grain may logically be expected to be of much more service in an emergency than the smaller doses usually given."

In the next article Drs. Vander Veer and Bendell take another view. As to drugs these authors write as follows: "In common with the majority of surgeons, we have abandoned most, if not all, of the one-time honored remedies. This especially holds true of strychnia. . . . . The experiments of Crile, supplemented by the clinical findings of numerous of our best-known men, we have found to be in keeping with our own personal experience. At the present time, considering shock as a condition of diminution of vasomotor tone, we have found strychnia of little avail as a rapid and efficient means of producing increased blood pressure. . . . . Each and every preparation of digitalin has not the same fate."

The contradiction could not well have been more absolute. Nevertheless, we believe that both parties are wrong. Vander Veer and Lydston alike ignore the fact that Crile's objections to strychnine were aimed against maximum doses, which Lydston, on the other hand, advises. While Vander Veer condemns the drug *in toto*, Crile was right. The

present writer has in person experienced the very decided depression following the dose (large in the circumstances) of 1-30 grain of strychnine. The use of this alkaloid in shock is as an accessory, and that in even much smaller doses.

Vander Veer also ignores Crile's observation of intense capillary spasm as an element of shock. This, with cerebral anemia, forms the pathologic condition to which the imminent peril is due, and the very point for our therapeutic attack.

The objective of our treatment of shock is to relax instanter the vasomotor spasm, suffuse the brain with blood, and arouse the vital centers from their torpor, or paresis. For this, no remedy offers such advantages as the nitrites, if administered in what Solis-Cohen aptly terms "dose enough." The official glyceryl trinitrite (glonoin, nitroglycerin) acts so instantaneously that it may be given in doses of 1-250 grain repeated every two minutes until the flushed face denotes its full activity and with it the passing of the peril.

But glonoin (the writer prefers the shorter, more convenient term) is not enough if taken alone. Its sedating effect upon the heart and the evanescence of its influence would merit the condemnation given it, were it administered in single large doses and without an adjunct. But that sort of medication reminds me of the tactics pursued at the opening of our Civil War by our inexperienced commanders, who, in their unwisdom, first glorified certain organizations as "the flower of the army," and then foolishly launched single regiments, unsupported, at the superior enemy. Not so with glonoin.

With each dose of glonoin, give 1-250 grain of atropine, for the purpose of prolonging and intensifying its effect, by keeping the cerebral centers flushed, as well as the face, through the active stimulation of the vasodilators while the glonoin relaxes the vasoconstrictors. Then we come to strychnine. This remarkable alkaloid enhances all the vital functions, and among them the reaction to any drug administered at the same time. In this way it aids in arousing the torpid centers of the brain and increases and prolongs the effects of the glonoin and the atropine. The dose of strychnine should be a small one.

Conversely, by the aid of glonoin we secure quicker activity from the atropine and strychnine, and so the two-minute intervals are not too small in this emergency. Long before an excessive dose of either is reached the full effect of glonoin is manifest and the need for medication has passed.

Neither digitalis nor any of its derivatives has place in the treatment of shock. When the powdered drug is given, or the infusion, we have first developed the sedative action of digitonin, which may prove fatal. Following this is the heart-tonic power of digitalin, which does not meet the specific need of the moment. Fortunately, the death-grip of digitalin and of digitoxin on the capillaries and arterioles does not develop until much later, else death would be inevitable.

Dr. Lydston does real service in reviving the use of ammonia intravenously in these cases. Many years ago this was recommended in New York as a means of resuscitating even the apparently dead. Some remarkable instances of its efficacy were published at the time, but, like so many valuable therapeutic procedures, this use of ammonia was relegated to the limbo of the forgotten.

We are not writing on shock from the standpoint of the surgeon, but from that of a student of drug-action. It remains for the clinician to decide whether our views work out when the test of actual practice is applied.

I eat and drink and sleep for my body's sake; I read and study and muse for the edification and training of my mind; I love because I cannot help it; I laugh and sing and play for the joy such action gives to others as well as to myself; and I work because there is work to do, and because I could not well live without it.—Dr. E. S. Goodhue.

DRUGS—AND "KNOWING HOW"

If Dr. J. A. Witherspoon, president-elect of the American Medical Association, in his address before the Minnesota State Medical Association, made the statement credited to him in the newspapers , to the effect that "the better the doctor, the less medicine he will administer," he was guilty of a serious lapsus and one which will be eagerly picked up by the devotees of drugless methods of treating disease and used as an argument against both doctors and drugs.

The legitimate conclusion from a premise like this is, that the best doctor is the one who doesn't use any drugs at all. Measuring by Dr. Witherspoon's standard, people would be justified in throwing over the entire medical profession and selecting those "doctors" who treat the sick with cold water, hot air, hypnotic suggestions or any other drugless system that happens to be at hand.

In striking contrast with Dr. Witherspoon's foolish statement is the strong position taken by Dr. S. J. Meltzer, of New York, himself a

laboratory investigator of international reputation. In a paper published in *The Journal of the American Medical Association* he expresses himself thus:

"In discussing the self-training of the young practitioner, I would like to say a frank word on therapeutics. Many of our leading solid clinicians think lightly of therapeutics—unless it be water or air—and a good many of our fine, well-trained pharmacologists often speak sneeringly and contemptuously of the drugging habit of the busy practitioner. But let me say this:

"Our great medical teachers received their training in clinics closely adjoining the autopsy-room, and won their spurs by making brilliant diagnoses of such pathologic conditions which permitted early their verification on the autopsy-table. 'Interesting' cases of this type, which naturally rarely benefit by drugs, and which form mostly the bulk of the work of the great clinician in his hospital activities as well as in his consultation practice, give a wrong impression of the importance of drugs and in knowing when, how and which of them to use, such classical cases as above mentioned form only a small fraction.

"It is instructive to know how some of these great clinicians treat their patients when they have to deal with them all alone from start to finish. In a long experience I came across prescriptions by some of our great men which were a revelation to me. I could fill a page or two with such indiscreet gossip. Polypharmacy, incompatibilities, and even notorious patent nostrums were there."

Those who decry the use of drugs generally know little about them or have been so unfortunate as to depend upon preparations which were feeble or uncertain in action. As Doctor Meltzer points out, the fact that a man has a great reputation is no evidence that he is familiar with the clinical side—that he understands just how remedial agents should be given, to what persons, and at what time. These facts are not taught in the autopsy-room, nor are they expatiated upon in the hospital clinic.

The dictum has gone out that therapy is empirical—guesswork—while diagnosis, bacteriology, and pathology are "scientific." To men who believe this, the use of drugs *is* guesswork. If a man would know a thing, he must use it with sympathy, with a certain amount of faith, and with a large degree of skilled intelligence.

No, President Witherspoon, the man who uses the fewest drugs is *not* the best doctor. He may be a fine diagnostician, but he is not the man I want to treat me, no matter how high his standing, when the great crises of disease are being fought out in my economy. When sick, I want a man who can measure my fighting resources and knows how to bring out the reserves. That man will know drugs, and will use them in life's emergencies.

Originality is first cousin to Fortune. You can't solve today's problems with yesterday's methods. The past teaches what not to do—it marks the last stage of previous endeavor. Old rules make new fools. The future is always unique.—Herbert Kaufman.

And the future, with right now to begin its building, is your opportunity.—W. C. Abbott.

WATCHING THE TICKER

I like to talk in parables; and in this I am not without good company. Some years ago I had an acquaintance who devised an ingenious scheme, not exactly for beating the stock-market, but at least for "playing" it to advantage. He was at that time a broker, and of course well versed in everything pertaining to the ticker.

Being somewhat of a philosopher, this man amused himself in his spare time by making systematic comparative study of the charts which had accumulated in his office and that of his predecessor during the past twenty years; and in this process he made a discovery. He found that the charts followed certain definite tides or movements, just as does the temperature in the various types of fever; and from this he deduced the conclusion that anyone familiar with these chart movements could, from the way in which certain stock had moved during the immediate preceding day or two, predict with reasonable certainty the way in which it was going to move.

So thoroughly was this friend of mine convinced of this truth that he at once organized a company for the purpose of advising clients how to operate in stocks and bonds, obtaining subscribers at so much a year and sending out daily market-letters based upon his observation of the movements of the quotations during the forty-eight hours preceding each letter. And it is a fact that in seven cases out of ten his predictions were correct.

All this is very interesting, but only preliminary to the point I wish to make. After several years of absence from the city where he lived, I dropped into my friend's office one morning and found him sitting complacently at his desk, instead of standing at the instrument as had been his wont. The ticker in the corner was clicking out its messages unnoticed. I asked him whether he had given

up his market-chart letters. He said, no, on the contrary, they were more successful than they had ever been; but he had learned in recent years that his judgment was much sounder, and his own health and peace of mind much better, if he let the ticker severely alone until the end of the day and then took a bird's-eye view of its entire results. He said that when he watched every rise and fall of the instrument it made him nervous and vitiated his judgment.

I wonder whether any practitioner has ever experienced the same thing in the matter of watching a patient. Whether he has, or not, here is a valuable practical lesson. While, of course, it is essential that a physician should keep close and careful watch upon every patient, there is such a thing as keeping too close a watch. It is possible to worry oneself, and nag at one's faculties of observation, and weaken one's judgment by too minute and constant a tab upon every detail of the course of the disease.

This overzealousness is one of the things that disqualifies any physician for the intelligent care of his own kith and kin during sickness. There is so much at stake. He watches the patient like a hawk and keenly notes every little fluctuation in temperature and pulse and every other symptom, until he loses his sense of proportion and unimportant variations assume an exaggerated significance, and his judgment is all at sea.

The same thing holds good, in less degree, with any case that is watched too closely. That is one reason why the family is apt to get so wrought up over the patient's condition—because they are with him or her all the time, just like the man who hangs over the ticker. And one reason why the doctor is able to clear things up when he looks in for his call is that he comes with fresh judgment and takes a sane comprehensive view of the general movement of the chart.

Of course there are emergencies in which all these philosophical rules go by the board. That is a different matter. When there is a panic on the stock-market—oh, then my friend jumps to the ticker and stays there and never leaves it until it is all over, just as the captain of the steamboat lashes himself to the bridge during a furious storm at sea. But ordinarily it is not wise for the physician to "hang over the ticker" too closely; to be taking temperature and counting pulse, and the like, every half hour. Let the nurse or someone else do that, whose business it is to do it as a mere mechanical routine. It is better that the doctor should confine his scrutiny of the charts to twelve- or twenty-four-hour intervals, in which he can obtain a calm, intelligent idea of the tide or movement of events.

"Judge not the workings of his brain and of his heart. Thou canst not see. What looks to thy dim eyes a stain, in God's pure light may only be a scar brought from some well-worn field, where thou wouldst only faint and yield." This motto hung in Colonel Roosevelt's room in Mercy Hospital, Chicago.

"MADE IN THE UNITED STATES"

In the July number of CLINICAL MEDICINE we called attention to the excessive disproportion between the prices charged by German chemical manufacturers for drugs on which the patents have expired, but which are still sold under their old coined and advertised names, and the prices charged for the same substances under their chemical names. There is a difference in price of from 50 to 1500 percent, with an average of about 400 or 500 percent! For the same things, identically, mind you! Showing that, while "a rose by any other name may smell as sweet," the name here cuts a big swath in fixing the price.

The Pharmaceutical Era comments editorially upon the presentation made by CLINICAL MEDICINE, emphasizing even more strongly this extortion, which seems to be possible only because physicians generally are not familiar with the chemistry of the coaltar products and its terminology. *The Era* wisely says:

"Is it not about time for the American physician and the American pharmacist to get together in a commercial pact with the 'Made in America' slogan, instead of allowing the wholesale attack upon the ethics of American houses and manufacturers by German houses and their agents, who use the pleas of protecting American lives to bolster up German incomes?"

Let it not be assumed that we are attacking everything German in the drug line. Too many good things come from the fatherland for us to resort to wholesale condemnation, and it has been our pleasure to open the columns of CLINICAL MEDICINE to those who felt themselves aggrieved. But the greed and arrogance with which some of these firms have "milked" the drug-trade of this country should be known by every person purchasing or using drugs. Within the last few weeks one of these firms, the great Farbenfabriken, has been indicted for alleged tampering with the employees of a dyeing concern in Phil-

adelphia which presumed to buy its supplies from another source.

In this country we do not oppose clean competition. All we ask is that the truth be told and our competitors come out into the open. But, other things being equal, we believe in "America for Americans," and we therefore join with *The Era* in the "Made in America" slogan.

THE BATH

While Woods Hutchinson asserts that the daily bath is a health requisite and he urges laborers to bathe several times a day, the fact is disclosed that Europe, to which we look for everything good enough to imitate, really is bathless. Only one residence in ten possesses a tub; even in cleanly Holland and in tubby England this holds good.

The cold-bath advocate has gotten in bad with the paragraphers. His enthusiasm and pride over his matutinal plunge are so great that other people feel disposed to heave a brick at him whenever he opens up on his hobby. These funny folk might with better sense inquire what there is in the cold bath to arouse such favor in the devotee's mind.

The writer of these lines has had the privilege of treating a large number of persons throwing off the shackles of opium. At a certain stage of the treatment it has been his custom to advise the cold plunge as one means of arousing reaction. The effects are so notable as to be worth describing. Every last one of these men promptly informs us that he is peculiar in that he can not endure cold water; and much persuasion is usually required to induce a trial. Yet, the invariable result is a reaction so delightful as to win the enthusiastic approval of these individuals.

The patient plunges into the tub of scintillating liquid—one man told me he never could comprehend how I mixed ice and water so intimately; for mere water could not possibly be so cold! The plunge is instantaneous, emergence from the tub even quicker than that. Then the patient is rubbed all over rapidly with a coarse towel, reaction being promoted by slapping if necessary, and he is hurried into a warm bed and well wrapped in blankets. In a moment more, as warmth permeates his form, he invariably looks up and remarks that he feels just as if he had had a "big slug" of morphine. Next day we find this once diffident man taking the plunge every hour, so delightful is the reaction.

The writer believes in cold bathing. Returning to the North after an attack of yellow-fever and softened by the tropics, he found himself unable to withstand the northern cold. At the advice of his revered preceptor, Samuel D. Gross, he began the use of morning cold baths. After these the cold air seemed easy to bear; and to this one custom especially the writer of these lines attributes much of the phenomenal health and working capacity that has blessed him ever after.

So you see I am to be remembered among the cold-bath cranks—with reason.

There are two worlds: the world that we can measure with line and rule, and the world that we feel with our hearts and imaginations.—Leigh Hunt.

CONSTIPATION AND ANEMIA

In a timely article, appearing in *The New York Medical Journal*, Dr. Beverley Robinson, discussing the relation of chronic constipation to anemia, correlates two phases of this important subject—one a time-honored, almost archaic one, which he revivifies and gives fresh emphasis; the other very modern, this giving new force and added significance to the first.

Dr. Robinson reminds us that a very common and prolific cause of constipation, and of all the autotoxic sequelæ that follow in its wake, is the habit, so prevalent among girls and young women, of neglecting the call to stool. This important etiologic factor used to receive persistent and reiterated attention, accompanied by warning, in the lectures and textbooks of former days, so that it became almost a routine part of the family physician's duty to admonish mothers to look carefully after this item in their daughters' hygiene; and Dr. Robinson deplores the fact that of late both the teaching and the practice have fallen into comparative desuetude, greatly to the detriment of all concerned.

The Doctor further points out that the data put into our hands by modern methods of clinical diagnosis furnish us with an opportunity of making more than a mere perfunctory admonition about this matter; namely, that of keeping intelligent, systematic watch upon the stools in cases of constipation and anemia, with a view to applying equally intelligent and systematic therapeutics to the case in hand.

We agree with Dr. Robinson that the clinician has not availed himself of the diagnostic agency of stool examinations to anything like the extent that he might and should. Not nearly enough attention is paid either to the functionation of the bowels or to the fecal output in our charting of

disease and disease-processes. It is true, an examination of the stools does not, and probably never can, yield the same amount of information that is derived from a uranalysis, since the output of the bowel is, in the main, but the residue of that which does not enter into the metabolism of the body, while the urine represents the end-products of metabolism itself. Even so, one can learn a great deal about the way a furnace is working by the quantity and quality of the ash that it drops; and no intelligent, conscientious engineer, investigating the caloric capacity of a furnace, would think of neglecting a careful and systematic analysis of its ash.

Especially in cases of primary constipation, even a macroscopic inspection of the stools will generally give us valuable information as to the particular nature of functional deviation with which we have to deal. The presence of blood or lienteria or free fat or mucus or what not will furnish considerably more than a hint as to the immediate cause of the trouble. Yet, as Dr. Robinson points out, these data are almost never included in the record of observations even in our most carefully watched hospital cases, let alone in our family practice.

Another point brought out and emphasized by Dr. Robinson to which we heartily subscribe is the necessity for giving intelligent individual thought and study to the treatment of constipation. Indeed, this is the wise end toward which he looks in his insistence upon stool examination. The attitude of the physician toward the matter too often is the attitude of the average layman. Constipation? Why, give a cathartic. What cathartic? Oh, it makes no particular difference; any one is as good as any other. Which shows what an indifferent, obtuse position we have come to occupy toward the subject.

Constipation may be due to a dozen—yes, even to two dozen different conditions; and what is one man's meat is another man's poison in this regard. There is no such thing as a specific, self-existing "cathartic," any more than there is such a "tonic." That which will correct and remove the pathophysiologic condition underlying the constipation is the indicated cathartic—which may be anything, from a drug to a suggestion. We can "move the bowels," of course, with almost any purgative drug, if we given enough of it. But moving the bowels is no more curing constipation than forcing emesis is curing chronic gastritis. This is a matter which has been on our minds for some time. Some day soon we purpose to deal with it in detail in this journal.

For the rest, Dr. Robinson's opportune agitation of the question of constipation in its relation to anemia is in line with the slogan that we have been shouting from the housetops for the last quarter of a century, or thereabouts.

Outside of the grave infections and profound metabolic diseases, ninety percent of the ills that flesh is heir to are caused—and all are aggravated—by absorption of fecal toxins from inadequately functionating bowels. It is not enough, as Dr. Robinson aptly says, to give these patients a day's dosage of calomel, followed by a dose of "salts" in the morning. They need more than just a movement of the bowels. These individuals need to be cured of the constipation habit, physiologically and socially.

In the matter of drug therapeutics, simple cases will generally yield to persistent administration of properly proportioned stimulants of the various functional segments of the intestine, and of the bile function. But every case must be patiently and intelligently treated upon its merits.

A really great man is known by three signs—generosity in design, humanity in execution, and moderation in success.—Bismarck.

EVOLUTION OF A QUACK FROM A TITLE CLAIMER

The readers of Marryat's "Japhet in Search of a Father" will recall the gorgio husband of a gypsy who stole his brother's daughter and attempted to seize his brother's title, meanwhile working the traveling-show dodge of the itinerant charlatan. That interesting purveyor of semi-historical European-society gossip—the Marquise de Fontenoy of *The Chicago Tribune*—narrates a new case illustrating how "the course of time will swerve, crook, and turn upon itself in many a backward streaming curve."

Some three or four years ago a man who claimed to be a son of King Edward VII, by a secret marriage contracted prior to his union with Queen Alexandra, occupied a considerable amount of attention in the American press, by reason of his preposterous pretensions and his swindles, which led to his frequent arrest.

Styling himself alternately Prince de Guelph and Prince John of Great Britain and Ireland, he left unpleasant trails in

many parts of the world, and, undisturbed by the publicity given to his ejection from one of the leading Fifth Avenue hostelries and arrest as a notorious hotel beat, he subsequently established himself in a cheap Brooklyn boarding house, where he ran an "Ermine Social Bureau," the object of which was the presentation of his dupes at the court of his father, King Edward, at one hundred dollars a head. Incredible though it may seem, he found people willing to pay.

Lately this fellow turned up at Los Angeles, California, as the inventor and purveyor of a beverage he calls amritam, which, he promises in the circulars bearing his signature, will effectually "avert premature old age and senile decay." He is sending these circulars from Los Angeles all over the country and even to England.

He always had a disposition toward medical quackery. It was as a "medical man" that he first incurred, in 1897, legal prosecution at the hands of the New York County Medical Society, through his endeavors to win the $1,000,000 that Charles Broadway Rouss offered to any physician who would restore his sight. He represented himself as Prof. John Rex Guelph Norman, head of the Burma sanatorium of Moulmein, India. Associating himself with a Methodist clergyman named Morrison, the two started in New York a therapeutical society, which professed to employ the "science of life, as practised by the ancient magi, for blindness, failing vision, and all chronic ailments of men and women."

Rouss prudently selected, as a substitute for experimentation, a blind man named John Martin. The treatment consisted in pouring water, claimed to be from India, on the patient's head and rubbing it in.

Needless to say, John Martin, like his principal, Charles Broadway Rouss, remained blind, but people who were led to believe that this precious couple had Rouss himself under treatment flocked to the rooms of the "therapeutical society," and the two quacks lived on the fat of the land until driven out of New York by the authorities.

The United States authorities seem to be more anglophiliac than the New York County Medical Society, since neither under the Pure Food Act nor for misuses of the mails has this Guelph quack been prosecuted.

THE PURITY OF THE DOCTOR'S DRUGS

Some two or three months ago *The New York Medical Journal* discussed the quality of the drugs employed by the dispensing doctor. Our contemporary was disturbed by the charge made at a meeting of the New York Pharmaceutical Association that inferior drugs are sold to bargain-hunting physicians by conscienceless manufacturers, who take advantage of the law's defects to foist their poor stuff upon the medical profession, especially in commerce within state limits, where the federal statutes do not apply.

After repeating the stock argument, namely, that physicians are ignorant of the purity or nonpurity of the drugs they purchase, while their supplies are not subject to local inspection by proper state authorities, as are those of the retail druggist, the editor continues:

"As the laws now stand, there is no adequate supervision of the quality of drugs sold to physicians for their own dispensing. No physician would knowingly dispense a drug of inferior quality, but we should like to learn if any of our readers have found occasion to criticize the quality of drugs sold them for their own dispensing."

We have been attentively waiting for some expression of opinion in response to our contemporary's inquiry. Thus far we have seen none. The fact is that all the complaint of this nature comes from the druggists—none from the doctors. The latter seem well pleased with the self-dispensed remedies, and so, we might add, their patrons also. *The New York Medical Journal* is absolutely right in its statement that "no physician would knowingly dispense a drug of inferior quality," for no one appreciates better than does he that to do so would mean professional suicide.

Are there any dishonest men and unscrupulous firms furnishing supplies to doctors? Assuredly. And there are short-sighted and ignorant physicians who buy those cheap drugs. But as there are dishonest dealers and ignorant doctors so there are dishonest and ignorant druggists. The state laws in many parts of the country are notoriously lax, and it is easy enough, even in a great city like Chicago, to foist upon the people absolutely worthless medicines, while taking very little risk in doing so.

The New York Medical Journal is misinformed as to the "lack of supervision of the quality of drugs sold to physicians for their own dispensing." As a matter of fact, whatever the laxity may have been at one time, the supervision *now* imposed by the federal authorities upon all those engaged in interstate commerce in drugs—and *that means practically every man or firm selling to the dispensing doctor,* except the

few enterprising and far-sighted pharmacists who cater to this trade—is far more exacting and rigid than that placed by any state upon its retail druggists.

Every manufacturing pharmaceutical firm in the country, big or little, coming under the jurisdiction of the federal Bureau of Chemistry knows that its products are not only *subject* to inspection by that Bureau, but that they *are* being inspected. If their products do not come up to the standards of the Bureau, they will be called into court, fined, and the fact probably given nation-wide publicity.

There is no guesswork about this—it can be depended upon. And the result is, that the best, most dependable, and, all things considered, the safest remedies to use are those made by manufacturing houses subject to federal inspection. These houses prepare 99 percent of the drugs dispensed by our doctors. If the physician-purchaser wishes to be sure of safety, he needs but to insist upon getting the products of houses subject to federal inspection.

Of course there are certain classes of remedies which from their very nature can not be depended upon. Such are the tinctures and fluid extracts, especially when they are made by the retail pharmacist, who usually lacks adequate opportunities and knowledge for determining their strength and purity. How can the average druggist make delicate volumetric analyses? How can he make the necessary physiologic tests on animals of drugs like ergot, digitalis and aconite? The answer is, he can not; nor does he try. Yet, all good manufacturing houses do these things.

Furthermore, all these potent remedies deteriorate on his shelves under the influence of heat, light, and age. Neither can the pharmacist hinder this. The only remedies that are not subject to variation or deterioration—the active principles—lend themselves so readily to the skill of the granule and tablet maker—and the dispensing doctor—that these are not such general favorites with the druggist as they certainly should be—and certainly will be when he knows them better.

If we may offer a suggestion to the retail druggist, it is this: Accept the dispensing doctor as an established institution. He is here to stay. Therefore cultivate him instead of abusing him. You can't turn him back to prescribing, any more than you can "make a two-year-old steer in a minute." But if you use him right, deferring to his judgment as to what is good and what isn't good, the chances are that you can get some of his business, and that he can help you to get a good deal more among his friends and patrons. Why not try this plan instead of antagonizing this growing class?

TO BE REMEMBERED IN YOUR WILL

The Associated Physicians of Long Island have passed a resolution agreeing to devote their bodies after death to the advancement of medical science. Two hundred members indorsed the resolution. The movement is praiseworthy, in that it presents for verification at the autopsy-table those cases that will have received the most elaborate study during life. Besides, it should influence other intelligent persons to make a similar disposition of their bodies and thus help to dissipate from the minds of the less literate the superstitious opposition to postmortem examinations.

Truly, the medical profession serves the public. No avocation of humanity shows such self-sacrifice, such altruism, such devotion to humanity, at the cost of all that life holds dear and even of life itself. There is never a summons to martyrdom made but that the doctors throng to proffer themselves. The leper colonies never ask twice for a medical victim. The occurrence of a plague like yellow-fever has always a Murray ready to besiege the authorities for permission to plunge into the death-stricken community and grapple with the pest.

The entire profession advocates and promotes that preventive medicine which cuts off its own livelihood. The measures by which smallpox, typhoid fever, tuberculosis, and other infections are held in check cut deeply into the incomes of the doctors—yet, who ever heard one of them complain! Half his time may be taken up in the effort to meet the demands of landlord, grocer, tailor, and all the rest, and yet he cuts the limb, on which he sits, between himself and the tree of plenty.

And now it seems that death itself does not end his faithful public services, but that he devotes to the good of humanity his worn-out body. Widow and children who have already borne so many hardships must make one more sacrifice and forego the melancholy pleasure of dropping their tears upon the earth that covers his form.

It is a noble thought that has been given shape by the Associated Physicians of Long Island.

Leading Articles

The Doctor of Tomorrow*

The Fields That He Must Cultivate

By J. M. FRENCH, M. D., Milford, Massachusetts

EDITORIAL NOTE.—Medicine, like everything else in these pregnant days, is undergoing rapid transition. What it shall be, the position of the doctor in the society of the future, will depend largely upon what we do now and in the years to come. We should be studying closely the problems of our profession, that we may be able to solve them wisely.

THE question is often asked nowadays, "What is to become of the doctor?" We are told that the old-fashioned country doctor, the general practitioner, the family physician of the olden days, is going out of fashion or is already a thing of the past, and that there are left only the great surgeon, the distinguished specialist, the street fakir, and the drugless healer to do business at the old stand; or at least, if any general practitioner does temporarily survive the general wreck, his sole employment will be to parcel out his cases to the multitudinous specialists who are to be the real and only IT of the medical world of tomorrow.

So, too, we hear a great deal about the overcrowding of the medical profession: there are far too many doctors, so they tell us. Each doctor needs at least one thousand patients in order to make a living, they say, while, as a matter of fact, we have in this country not much more than five hundred for each doctor. So half of us must starve or else go into some other business. They figure the average income of the doctor all the way from $500 to $1500 a year; and either sum is not enough to vouchsafe a good living, in these days of high cost, for the man who wants to make something of himself and family.

Then, again, so great has been the general increase of knowledge on the part of the public, so wise have the people become in matters pertaining to health and disease, and especially to medicine, that there no longer is need of doctors, save under exceptional circumstances. Especially as to the taking of medicine, we are told that intelligent people are fast outgrowing that. Christian science and osteopathy will answer for the "upper crust," and the druggist will furnish patent medicines to the "under crust"; between them all, the regular doctor is left without any crust at all. Indeed, the strictly scientific physician, even of the old school (note the term "old school"; this is a favorite term with the fools and faddists), no longer give medicine, for the people have outgrown that. The scientific man simply harks at your chest, analyzes your secretions, x-rays your pocketbook and—makes his diagnosis accordingly. He then prescribes a diet list, a sanitarium or a sea voyage, according to the revelations of the x-ray—and collects his fee in the same old way.

Now, this is what *they say*. But more than half of what they say is a lie; and the remainder of their talk is nonsense. Things are not as bad as they say. The world is not going to the devil; and the family physician is not a back number—in very fact, he is the coming issue. Your family physician is bound to be an important factor in the Doctor-of-Tomorrow—mind, I do *not* claim that he is to be the whole show.

The World Always Wants Doctors

It is all nonsense to say that there are too many doctors. The only trouble is that the doctor has not yet come into his own—but, then, he will, *tomorrow*. If he knows what to do, and how to do it; knows what

*Read before the Thurber Medical Association, December 7, 1911.

the people want, and how to satisfy that want, then there are not too many of him. For the world *wants* doctors, and wants them right now. Men want doctors to cure their warts and corns, and boils and carbuncles and felons, and chilblains and ingrowing toe-nails; and to remove moles and birthmarks and superfluous hairs; and to break up colds, and sore throats, and pneumonias and typhoids, and all that large class of diseases of which Osler says they cannot be influenced by any known medical treatment—meaning any medical treatment known to himself, the great Osler. And most of all, men want doctors to tell them how to keep well when they are well, and how to grow old without losing all the enjoyment of life. To be sure, people have not quite found out yet that they do want this last class of things; but that is because the doctor has not done his duty in teaching them—probably because he has not known himself. Still, he is learning today, and he will know tomorrow.

The more intelligent people become, the more they will want and will employ the doctor—that is, if the doctor keeps up with them and learns how to give them the things they want and need. Big Business is taking a part. Large firms are keeping a doctor to look after the health of their employees. Also, the insurance companies, some of them, are learning that it is worth while, as a matter of financial profit, to send their policy-holders to the doctor, at the company's expense, at least once a year, in order that they may know whether there is anything the matter with them, to the end that they may be able to check the very beginnings of degenerative diseases, such as, for instance, Bright's disease, diabetes, tuberculosis, and the protean manifestations of arteriosclerosis.

Of course, the Doctor-of-Tomorrow must know a great deal more about hygiene and prophylaxis than you and I were taught by our old professors in the medical schools. Speaking for myself, I well remember my feelings of disgust when I found that we were taught the laws of disease, but not the laws of health; pathology, but not hygiene; treatment, but not prevention. The medical schools of tomorrow will correct all that; indeed, those of today are far in advance of those of yesterday, in these respects as well as in most other. And the reason why these things will be taught is, because the people are coming to demand them.

There will be general practitioners tomorrow, and specialists of all kinds, just as there are today. There will be physicians and surgeons, country doctors and city doctors. But with all of these, as with the people at large, the idea of preventive medicine is coming to the front, in the good times of tomorrow. The surgeon will get a chance to operate earlier, and so the operations will be less serious and more successful. The physician will see his cases in the incipient stage, and will learn to abort a large proportion of his acute cases, instead of having to conduct them through the long and uncertain course of a self-limited or an unlimited disease.

What the Future Family Physician Will Do

As for the family physician, it will be his duty to look after his families in health as well as in disease—and I hope that, when the good time comes, we may be able to say, in health, *instead of* in disease. He will be regularly engaged as the family physician, and will visit all of his families and all of his regular patrons at such intervals as may be agreed upon between them or as he may consider necessary. Families with young children will need to be visited oftener than those composed only of healthy adults. Invalids and aged people will need to be looked after with a great deal of care.

The regular business of the doctor will be to start out in the morning, not waiting for a call, and visit a certain number of families each day. The children must be examined with care, as to diet, exercise, physical condition, and general health, and also for every departure from the normal. The experience of the school physician shows that it will be well for him at regular intervals to look after the children's throats and nasal passages, their teeth, their eyes and ears, and for every form of defective development. He will prescribe, not merely or mainly medicines, but diet and hygiene. He will suggest and direct exercises, mode of dress, manner of sleeping, how to get plenty of pure air, as well as how to avoid chilblains, pimples, summer complaints, and colds. In those cases which he thinks can be better served by a specialist, he will be at liberty to refer the patients to such a one. As to whether, in these cases, he or the family shall pay the extra bill, will depend upon the terms of the contract. It will take time to find out how the matter will work out.

The adults will not need to be seen as often, but may require even greater care in their examination. Often they may best see the doctor at his office in the evening or at an appointed time, where all the details

of a thorough physical examination can be gone into. Not only this, but the family history will be gathered. This will give an idea of the family vitality, and the number of years the patient ought to live under favorable conditions. The points considered will include all the details of a thorough life-insurance examination, and much more. It will, when completed, enable the doctor to tell his patient whether anything serious is the matter with him, how to avoid disease, or what to do if developed. He will advise as to all the details of the manner of living. He will give medicine only when necessary.

You will see that the larger part of what I have blocked out for the doctor to do tomorrow is in addition to what he is doing today. He will still have to attend his acute cases daily, or as may be needed; and he can do this with greater freedom and to better advantage than he does today, because the frequency of his visits will make no difference with the amount of his compensation, which will be on a yearly or a monthly basis. And I think you will agree with me that, with the plan I have marked out for him, there will be no trouble but that he will earn his money. Another thing—there will not be too many doctors but work enough for all. How many patients, do you think, can a man attend properly after the manner I have described? Methinks five hundred will be all that any man will care to undertake, enough to keep him busy, and enough to furnish him a good living.

The Plan Is Not Chimerical

Now, methinks, I can hear you say: "That is a very pretty picture that you have painted, but it is all romance. The trouble with your plan is that you never can make it work. People won't employ a doctor to look after them when they are well, and they won't pay him a salary by the year, whether they are well or sick."

Well, that is an old story, one that has been heard from the beginning. They used to say that the birds could fly, but men could not. Yet the time has come when men *can* fly. Time was when it was considered against human nature for Catholics and Protestants, and Jews and Gentiles to meet on friendly terms and discuss matters pertaining to religion; still, only the night before last a large audience of Protestant and Catholic Christians met in the Congregational church of Milford, to listen to a most entertaining and profitable discussion of the principles and practice of human brotherhood by a Jewish rabbi.

Once it was thought that, when nations came to differ, they must come to blows; and the blows must be kept up until one or the other cried "Enough!" But now the Hague Congress and the international peace treaties succeed in preventing most imminent wars; and when erring nations do break over and take to blows, when we think they have gone far enough, our Teddy takes them in hand, shakes his big stick, and persuades them to stop. And, yet, human nature is the same in all ages.

A great author has opened his greatest book, on the newest of all the human sciences, which is *eugenics* (the aim of which is to revolutionize—or better, evolutionize—the world as to the character of its men and women, and to make the world of tomorrow vastly better than it is today), with these words: "This book will be mere foolishness to those who repeat the inhuman and animal cry, that we have got to take the world as we find it—the motto of the impotent, the forgotten, the cowardly and the selfish, or the merely vegetable, of all ages. The capital fact of man, as distinguished from the lower animals and from plants, is that he does not have to take the world as he finds it, but that he is himself a creator of his world. If our ancestors had taken and left the world as they found it, we should be little more than erected monkeys today. For none who accept this hopeless dogma was this book written."

In like manner I would say, this paper is not written for men who are looking backward. There is no progress in this world, except as some man gets a vision of something better ahead and works for its accomplishment. It is a fact that a considerable number of people are already looking with favor upon plans such as I have presented. Let us work toward their realization. If we do our share, the doctor of tomorrow will be a more important factor in human progress than he is today; his profession will be more honored and better rewarded; men will live longer, accomplish more, and be happier, than is the case today.

As for the members of this Society, let us not forget that "it is written in the creed of the Thurber Medical Association that medical men owe it, as a debt to their profession, to be leaders in every movement which tends to the promotion of health and longevity, and the increase of intelligence and morality, in the communities in which they reside."

Electrotherapeutics for the General Practitioner

Helps to Its Successful Employment

By HOMER C. BENNETT, M. D., M. E., Lima, Ohio

EDITORIAL NOTE.—This is the fourth paper in Dr. Bennett's series, the subject this month being "Phoresis." Other articles will follow.

IV. Phoresis

PHORESIS is the generic term for that property that is had by the constant mode to drive compound substances (a compound salt in solution for example) into and through the tissues of the body. Also, of moving substances in solution from one part of the body to another.

By phoresis is meant that power possessed by a galvanic mode to convey medicinal substances in solution and in contact with anode or cathode through and into the tissues of the body, with the view to securing the local effect of such remedies. The term need not be, nor should it be, confined to the introduction of substances outside the body into it by this method, but may include the transfer of substances already in the tissues, whether normal to their composition or not, from one part or place in the body to another; or from within the body or any part of it to the surface, with the view to removing such substances from the body.

The primary physical phenomena illustrated by phoric action are those long since observed when the ordinary processes of osmosis were found to be modified by the passage of a direct, or galvanic, mode through the solutions and members in which osmosis was taking place. It was found that processes of osmosis could be hastened or retarded by the passage of such a mode, according as the mode was made to flow in one or the other direction. Though the fluids in tissues are themselves repelled from the anode and increased at the cathode, this is not true for all substances that may at any time be dissolved or suspended in those fluids, since certain elements and compounds are known to travel in the opposite direction from that which is usually assumed to be the direction of the electric mode; that is, from the anode to the cathode.

In the light of present knowledge, as the results of observation and experiment, the phenomena which we include under the name of phoresis or electric osmosis must be regarded as the result of several causes operating at the same time and more or less interdependent, since certain of these phenomena are electrolytic, some are mechanical, while others should be classified as chemical.

Anaphoresis is the driving of substances in solution that are electronegative by the positive pole to or toward the cathode.

Cataphoresis is the process of driving substances in solution that are electropositive by the negative pole to or toward the anode.

Mode Direction

Much has been said and written concerning the different effects of the ascending and descending modes, but it is now conceded by the best authorities that what was supposed to be a difference in the effect of mode direction is due to the difference in action of the two poles

We pay particular attention to the location of the two poles in the application of electrification, and recognize the difference in action and effect of the positive and the negative pole, but we do not recognize any particular difference in the direction in which the mode flows.

It is stated by some authorities that the descending mode, or the one flowing from the center to periphery, is more sedative in its effect, while the ascending mode, or the mode flowing from periphery to center, is more stimulating. We know that this difference in effect is produced by the two poles, but have no reason for thinking that the direction of mode itself has anything to do with the different effects produced.

Vasomotor Effect of Electrification

Electrification in its various modalities has different effects upon nutrition, through the vasomotor nervous system affecting circulation. This is due to the polar actions of the mode. These effects were noted long ago, before we knew the polar actions of modes, and it was then thought that these effects were due to the mode direction, and much stress was laid on ascending and

descending modes. That is, from the periphery toward the centers. Now we know that these effects are not due to direction at all, but entirely depend on polarity.

The *positive pole* will act on the vasomotor nerves, supplying the muscular coats of the blood-vessel walls, causing the circular fibers to contract and the longitudinal fibers to relax, thus lessening the caliber of the capillaries, and consequently lessening the amount of blood flowing through them. This produces anemia.

The *negative pole* has the opposite effect. It relaxes the circular fibers and contracts the longitudinal ones, thus enlarging the caliber of the capillaries and increasing the amount of blood flowing through them, inducing congestion and hyperemia. The larger vessel not only carries more blood, but carries it slower. This favors the process of osmosis in both directions, and favors the nutrition of starved tissues, bringing them food and oxygen, and hastens the process of repair, and at the same time assists in the elimination of waste and dead matter.

Thus we see that we can control the blood supply to a part, and cause or reduce both anemia and hyperemia, and feed atrophy or rob hypertrophy by restoring the normal electric equilibrium or electrotonus.

Electrotonus

When each ultimate particle of the body or part is in its normal condition and in its normal relation with its surroundings, it is a state of normal electric equilibrium; and is in tune, or tone. This state we call electric tone or electrotonus.

Electrotonus is that condition of the nervous system, and through it the body, in which there is an electrical equilibrium established, and the nerves and system of nerves act and react to physiological stimuli in a normal manner and to a normal degree. All electrotherapeutic treatments and application are given with the end in view of establishing or restoring the normal electrotonus.

By swelling application is meant the process of beginning an electric treatment with a mild dose and gradually increasing to the highest point of tolerance without producing pain, then gradually decreasing it. This will produce more or less of a rhythmic contraction and relaxation of muscles which is beneficial.

Which Pole to Use

This question is often asked, and it is important to know in using medicine by phoresis. Every element is an ion, with either positive or negative electrification. It is one law of electrification that like poles repel and unlikes attract, so that, if corpuscles are free to move, there is a double action going on—of attraction and of repulsion—and if we know the relative potential, we can do good phoric work.

Two elements may be of very unlike polarity, like sulphur and chlorine, which are highly negative ions; and potassium, sodium and lithium, which are the highest positive ions; therefore, sulphate of morphine and hydrochloride of cocaine, having a negative attraction, will be repelled by and driven into the tissues by the positive pole, from which they are farthest removed, *by repulsion*. Likewise, iodide of potassium, being attracted by the positive, would be best applied under the negative, which would most *repel* it; for in phoresis, although attraction and repulsion are both manifest, the *repulsion is the stronger*.

A great deal of experimentation has determined the relative position of the different elemental ions, and Berzelius' final series stands thus:

ELECTRONEGATIVE	
Oxygen	Silver
Sulphur	Copper
Selenium	Bismuth
Nitrogen	Tin
Fluorine	Lead
Chlorine	Cadmium
Bromine	Cobalt
Iodine	Nickel
Phosphorus	Iron
Arsenic	Zinc
Chromium	Manganese
Vanadium	Uranium (Polonium,
Molybdenum	Radium)
Tungsten	Cerium
Boron	Thorium
Carbon	Zirconium
Antimony	Aluminum
Tellurium	Didymium
Tantalum	Lanthanum
Titanium	Yttrium
Silicon	Glucinum
Hydrogen	Magnesium
Gold	Calcium
Osmium	Strontium
Indium	Barium
Platinum	Lithium
Rhodium	Sodium
Palladium	Potassium
Mercury	ELECTROPOSITIVE

At first glance, the statements and table above would appear contradictory; but, remember the Berzelius table is based on the attraction of the ions, and not *repulsion on which we depend most* for phoric effects, so that potassium being the highest negative ion is the most attracted to the positive pole, therefore gets closest to it and vice versa

with oxygen and the negative pole. Change the poles and the ions would, if possible, all reverse their positions on the list, metallic mercury, being near the center, would not care much which way it went, but the oxychloride of mercury, negatively attracted, would be repelled most under the positive electrode. Two ions may be on the same side of the neutral point, and partake of and be attracted by the same polarity, but would be mutually repellant, and the weaker would be pushed back, just as two strong men will contend for the same prize, but the stronger will overcome the weaker and keep him away from first place.

When a difference of potential is established by a direct mode of electrification sent through a collection of molecules, each atom or corpuscle of any substance that is free to move deports itself, according as the

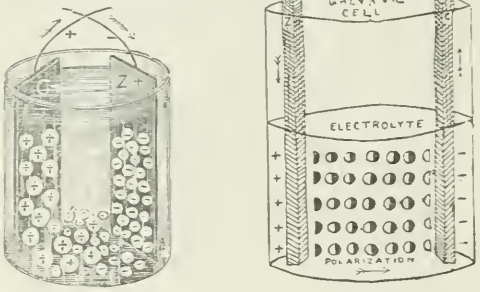

Fig. 1. Showing current direction.

electric charge it receives is positive or negative. Those atoms or corpuscles with a negative charge will move toward the anode, and those with a positive charge, toward the cathode.

The direction, therefore, which a medicine in solution will travel, whether from anode to cathode, or the reverse, when the attempt is made to use it phorically, will depend on its initial charge.

Solutions of cocaine, of adrenalin hydrochloride, aconitine or tincture of aconite, helleborine, mercuric bichloride, mercuric succinide, strychnine nitrate, menthol, thymol, hamamelis, thiosinamin, fibrolysin, verbascum, thuja, sulphur, ichthyol, or of eosine can, when in contact with the anode, be conveyed into the tissues by anaphoresis; while the calcium, lithium, sodium or potassium iodides, chlorides or bromides find entrance by way of the cathode. Just reverse that table of Berzelius, when thinking of phoresis, and you will see it.

Affinity is attraction, and the Berzelius table is based on attraction. Phoric medication is just the opposite, and is based on repulsion. Human nature and chemistry follow the same law: You hate harder than you love.

The negative polar action and reaction is alkaline.

Like repels and unlikes attract.

Oxygen is an acid, and has a strong affinity or attraction for its opposite, hence gets closest to the alkaline negative pole, and farthest away from its like, the positive pole.

Oxygen is the highest positive element, and chlorine is five steps below. Therefore, if you want to introduce any oxide of chloride, or oxychloride, into the tissues, you may do it in two ways, viz:

Draw it in by the attractive negative pole, which loves lightly, or drive it in by the positive repulsive, which hates vigorously. Copper is only slightly soluble, but when attacked by the hydrochloric acid of the tissues, liberated at the positive pole by electrolysis, it forms oxychlorides of the metal copper, which try at once to get out of disagreeable and into more congenial company. The formation of the oxychloride of copper is purely chemical. Put copper into hydrochloric acid, anywhere, and this compound will form. The electrification is not necessary.

The process of phoresis is complicated, yet simple. Ordinarily, the human tissues are alkaline. The body contains oxygen, of course, but in a fixed compound, viz., water.

Electrolysis breaks up this compound, water, and sets free the acid oxygen, which unites with the copper, rather than to return to its divorced hydrogen, because the copper is more of an opposite. Chlorine does just the same thing, and the hydrogen, left out, flies away as a gas, being lighter. The copper oxychloride forms in the tissues. The copper metal is fast to the electrode. The new oxychloride is free to move, and it stands not on the order of its going, but goes at once, and it keeps on going as long as the repellant hateful electrification keeps nagging after it.

Electrolysis does not decompose copper at all. It decomposes water, liberates an acid, which forms a chemical compound, which is repelled by the positive pole. The same process goes on at the negative pole when we want to drive iodine into the tissues. Iodine alone will not penetrate the tissues. Try it and see.

Iodine is also an acid, and it will unite with the albumin in the tissues and stop there.

Iodide of potassium, however, is freely soluble in water and will not coagulate albumin. Therefore, we use the vehicle potassium to carry the iodine to the part we want to treat. Then it is seized by the pirates (chlorides), and it (the iodine) is robbed of the potassium and left alone to do its work. Potassium is the closest to the positive by chemical attraction (being an alkali; and the positive, an acid), and gets the farthest away from the alkaline negative pole (its like) by repulsion.

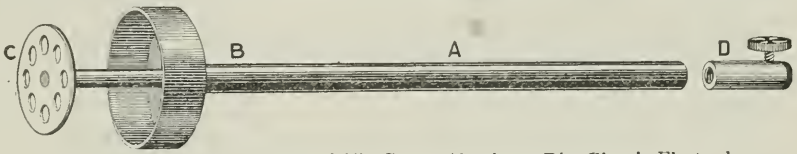

Fig. 2. The Bennett Improved Slip-Center Aluminum-Disc Pho ric Electrode.

The drugs used in electric phoresis are the alkaloids and the halogen (chlorine, bromine, iodine) salts; the chief among these being cocaine and potassium iodide. Cocaine hydrochloride is a complex salt containing oxygen, nitrogen, chlorine, carbon, and hydrogen; and, by referring to the table, you will see that all of these elements are electronegative and are, therefore, best applied under the positive pole.

Potassium iodide contains iodine and potassium; the iodine, which we wish to utilize, being loosely carried by the vehicle, potassium—which latter is the element with the highest electropositive attraction (or affinity)—is the most *repelled* by the negative, and should be applied phorically under the negative pole.

Potassium iodide being very soluble, it easily carries the iodine into the tissues in a much less caustic form than iodine itself, and being higher in the scale than the latter, goes in faster and in greater quantity. Iodide of potassium is also a very unstable salt. Having only one bond of union it is easily decomposed after it gets into the tissues, so that the iodine acts free within the tissues—and it is iodine that we want in a rheumatic joint. And we can deposit more in a given location by cataphoresis than by the mouth, and do it more quickly, safely, and pleasantly.

Remember that you should apply cocaine and other alkaloids under the positive pole (anaphoresis), but iodide of potassium and other halogen salts under the negative pole (cataphoresis).

How to Economize on Costly Drugs

The accompanying cut (Fig. 2) shows the improved Bennett slip-center reservoir phoric electrode, which is the simplest and best of its kind. The stem (A) and cup (B) are of hard rubber. The disc (C) is aluminum. To use it, simply unscrew the binding-post (D) on the stem, slip out the central rod attached to the perforated disc (C) for an inch, cover the disc with absorbent cotton, tuck the cotton fringe in behind the disc, draw the disc with the cotton back into the cup, then screw on the binding-post (D). Now saturate the cotton with the drug solution to be used, attach the contrivance to the proper polarity, apply the wet surface to the part, and then turn on the mode. The cup should be level full with the wet cotton. When through using, lay the electrode aside and allow to dry. When again needed simply wet the cup with plain water or with more of the drug solution, and it is ready for use as before. Ten drops of the tincture of aconite thus applied will give relief from neuralgia for from eight to ten hours.

When drug phoresis is thus employed upon a constricted limb, it is quicker and more effective in its action, for the self-evident reason that there is no circulating blood to carry the medicament away. Goiters have been atrophied by the electric diffusion of potassium iodide in their substance.

No special mode-strength is required. There should be no pain, and not more than moderate discomfort. But it is a fact that the stronger the mode, the sooner the effect. It should also be remembered that the larger the electrode, the stronger must be the dose. Hence, the value of the small electrode here described.

Small operations upon a limb may be done under electrophoric anesthesia, if aided by arrest of circulation. Thus, for instance, a section on the back of the hand of pianists may be done in this way. The forearm is constricted so as to slow circulation. Cocaine and aconite may then be applied with the anode until the part is anesthetized, when the section is at once begun.

Cocaine anesthesia is more quickly produced, is more enduring in effects, and necessarily requires less of the drug, by this method, than the usual injection without the arrest of local circulation.

Ordinarily a 4-percent aqueous solution of cocaine hydrochloride, placed in contact with a cutaneous surface by means of absorbent cotton or sponge, will have no effect in numb-

ing the sensibility of the part, even if kept in place an hour or more. If, however, the same solution is used in the same way, but, in addition, a direct mode of 12 to 30 ma. is passed through it by means of the anode, the cuticle in the region of the anode is soon found to be in a state of cocaine anesthesia, and will remain so for a period varying from a few minutes to several hours, depending upon the strength and density of the mode, the length of time it was applied, and the percentage of cocaine in the solution employed.

Every electrotherapeutist should have at least two of these electrodes, one for cocaine and one for potassium iodide, both of which are comparatively costly drugs; and, as there is no waste with the Bennett phoric electrodes, these will save their cost many times over.

A Good Local Anesthetic

Mix: Adrenalin hydrochloride (1 : 1000), 4 drams; cocaine, 10 grains; water, 1 ounce. Soak the cotton in the Bennett phoric electrode with this solution and apply with

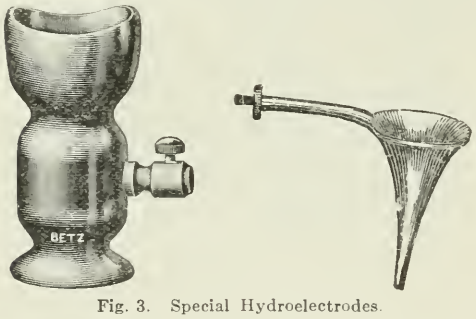

Fig. 3. Special Hydroelectrodes.

the positive electrode. Place the negative electrode elsewhere on the body, and slowly induce a dose of 15 to 30 milliamperes, for five to ten minutes. After washing the surface with ether, any small operation may be done without causing pain.

Besides the foregoing, a 1-percent solution of stovaine, known as anesthaine, also is excellent. While it is slower in action than the preceding, the effect is more lasting. Furthermore, this solution will keep indefinitely without deterioration, which is the great objection to cocaine.

The accompanying cuts (Figs. 3 and 4) show the special electrodes for the treatment of troubles of the eye and ear. These are to be filled either with plain or with medicated water, and, after being applied to the eye or inserted into the ear, they are attached to whichever pole or mode may be selected. By means of these appliances, the more sensitive membranes and delicate tissues of the eye and ear may safely be treated. The water here acts as the active electrode. The conducting cord is fastened to a binding-post, which passes through the insulator and makes contact with the water.

The accompanying sketches show the manner of applying the special hydroelectric, or phoric eye and ear, electrodes. Fill the cup with water, then let the patient lean over and apply it to the eye; then, holding it in

Fig. 4. Manner of application to the eye.

position, straighten him up with the eye-cup, as shown in the sketch below. (Fig. 4.)

To use the ear-cup, let the patient recline on his side. Introduce the funnel of the ear-cup into the canal; then fill it with water and attach to the battery; using it as shown in the next sketch. (Fig. 5.)

The cut shown in Figure 6 illustrates a special spring-clamp electrode for the phoric treatment of varicocele. The drugs commonly used with the varicocele phoric electrode are hamamelis (witchhazel), thuja, potassium iodide solution, or adrenalin solu-

Fig. 5. Manner of application to the ear.

tion. The electrode is divided, with a block-tin concave terminal on each side. Cotton saturated with the drug is applied and tightened by the thumb-screw and connected to the battery. The other pole,

connected to the back electrode held in place by a strap about the body, is shown in Fig. 7.

Anaphoro-Electrolytic Metallic Interstitial Diffusion

We know that the acid positive pole attacks corrodable metals, and an oxide is formed. This oxide unites with the chlorine present in the tissues in the from of the soluble chlorides, forming an oxychloride of the metal. This oxychloride follows the law of polar affinities, of unlikes repelling, and is driven into the interstices of the tissues, where it exerts its chemical properties—this being astringent and antiseptic. The metals usually employed are copper, zinc, and mercury.

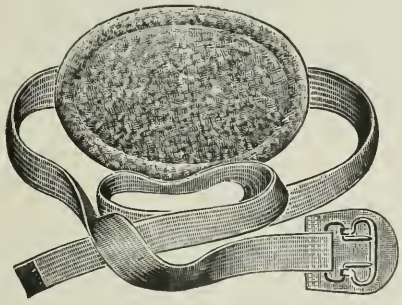

Fig. 7. Flexible Rubber Back Electrode.

This form of treatment has been found very useful in various forms of acute and chronic conditions, and especially so in the treatment of malignant growths and other neoplasms. The method consists in an electric interstitial diffusion—into, through and beyond the cells of the malignant growth—of the nascent mercuric and zinc oxychlorides developed within the growth by a powerful electric mode, the patient being under an anesthetic. These substances are developed, by electrolysis, from metallic mercury and zinc inserted into the tumor, the pure mercuric salt requiring the use of a gold electrode to diffuse it.

These chemical substances are fatal to the germs of cancer, causing an area of total destruction corresponding in extent to the apparent limits of the growth, surrounded by a zone of infiltration-reaction, within which colonies and prolongations not evident to the senses are destroyed without harm to the healthy tissue.

By this treatment, the salts of mercury are driven into the cancer-growth, by phoresis, with heavy electric doses; the patient being etherized and placed on a large leaden plate covered with heavy pads, which constitute

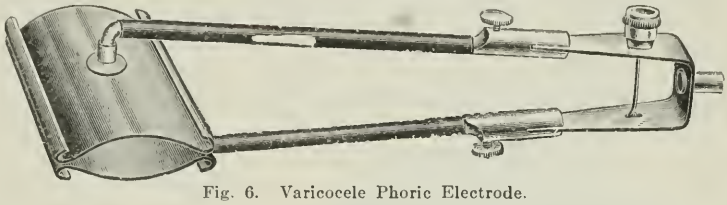

Fig. 6. Varicocele Phoric Electrode.

the negative electrode; the positive pole being a tube of gold with an amalgamated tip through which mercury is injected. Three or four hundred and even as much as two thousand milliamperes are used, and sometimes for as long as two hours or even more. An inodorous slough separates in from one to three weeks.

Figure 8 shows a phoric electrode for the treatment of urethral lesions and prostatic enlargement. It consists of a hard-rubber catheter, perforated at the distal end for about two inches with numerous small holes. Inside this is placed a flexible twisted copper wire, around the tip of which is wrapped absorbent cotton wet with a solution of the drug to be used phorically. The water acts as the conducting medium to convey the drug.

If the drug employed is potassium iodide, the electrode is to be connected to the negative pole of the battery, and the effect produced by cataphoresis. If you desire the local effect of the oxychloride of copper, derived from the wire, then attach the electrode to the positive pole, for the anaphoric effect. The other pole of the battery may be attached to a self-retaining sponge-electrode—either to the back-electrode shown before, or to a band-spring electrode which holds itself around the leg, as shown in the cut of

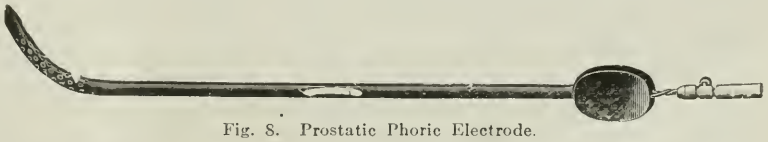

Fig. 8. Prostatic Phoric Electrode.

the electrode illustrated in Figure 9, or it is held to the skin by the hand-pad.

Soluble Electrodes

For many years it has been almost impossible (not to say impracticable) to treat

electrically internal organs of the body, because our metal electrodes were incapable of adjusting themselves to the irregular walls, the villi, and the folds which are so abundant in all the cavities of the body. This is the reason why I have adopted the solution process.

Let us take first the treatment of the stomach. We can readily dilate this viscus with a solution of salt and introduce an electrode through the esophagus—and then we have a large-surface electrode covering the entire wall of the stomach. This expedient will be found invaluable in many cases of

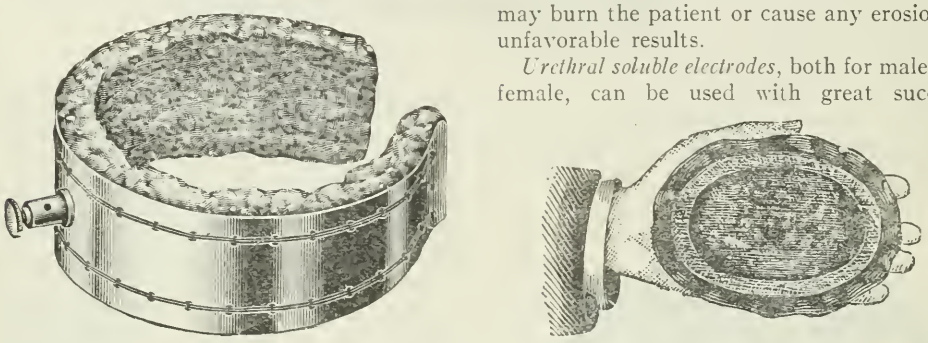

Fig. 9. Leg- or arm-band electrode on the left and hand-pad on the right.

dyspepsia, as well as in other gastric diseases. However, if we wish to concentrate the mode upon any one side of the organ, it is only necessary to place the exterior electrode (size to suit) over a convenient area in order to secure the proper direction of the mode. Either mode can be administered by means of these electrodes. (See Fig. 10.)

We call these contrivances "soluble electrodes"—not because they are soluble, but because the copper wire in them can be dissolved by chemical action, when it will be diffused, in the form of oxychloride of copper, through the water, this acting as a positive active electrode

Thus we can apply two forms of treatment: the positive sedative galvanic treatment, for the relief of pain, congestion, and inflammation, to a mucous surface internally, where we should not dare to apply the bare metal electrode; and, secondly, at the same time, we get the positive, or anaphoric, introduction into the tissues of an astringent, germicide, and antiseptic. This double action is most desirable and beneficial in some cases.

The rectal electrode can be used to great advantage in constipation, in neuritis of the abdomen, in intussusception, aperistalsis, appendicitis, and in many other disordered condition of the viscera, because the saline water can be forced, not only to dilate the colon, but also to reach the small intestines, so that they also will be available as electrodes. Hence, with this electrode, one can accomplish decided results that we had not the means of getting before.

The vaginal soluble electrodes. Most of our practicians know that the orifices of the reproductive organs are a network of sensory nerve-cells, or plates, and a tonic to the nerves in these parts is like the gardener sowing his seed on good ground, and then hoeing and watering it. Thus we can apply electrification to these organs, without feeling that we may burn the patient or cause any erosion or unfavorable results.

Urethral soluble electrodes, both for male and female, can be used with great success,

especially in cystitis and other complications of the bladder, as it can be utilized to wash out that organ or to dilate it with saline water; and then you have converted it into a large electrode. These same electrodes can be employed (with care!) intrauterine, with great success.

The soluble electrode for the ear is a valuable adjunct to the armamentarium of the electrotherapeutist; for, by its use, we can touch the tympanum with many of the saline solutions with ease, when we could not touch it with any electrode; and one who is adept in the use of the modes for disease will readily see the value of these electrodes. Much more might be said about these electrodes, but they will be mentioned later where indicated in therapeutics.

There is no known case requiring internal treatment that can not be reached readily by this process, naming inflammation, congestion, strangulation, obstructions, ulcers, erosions, or the absorption of pathological conditions. Any suitable medicament can be administered by the osmotic process by means of these electrodes, as a perusal of the list below will demonstrate.

No. 1 is the adapter, and it is used to connect both the water and electric supply to the electrodes, which screw onto it.

No. 2, for the ear, and No. 3, for the rectum, are used for giving treatments for all aural and bowel trouble.

No. 4 is for vaginal treatment and electric douche, and its employment is good treatment for leucorrhea (whites) and inflammation of the vaginal walls and cervix. Invaluable in all cases of ulceration and infectious diseases of the female sexual organs. Marvelous work can be done by the application of electrification with this electrode.

No. 5 is to be passed through the female urethra, and, by admitting enough saline water to dilate the bladder, it makes an electrode that is valuable for treating any disease of that organ, as the galvanic mode, acting on the salt in the water, creates hyperchlorates (which latter are germ-destroying agents), while, as well, we get its action on the copper, giving off copper oxide, which is a germicide of itself. No. 6 is the same as No. 5, except that it is used in the male organ.

These electrodes are made of hard rubber and protect the mucous membranes from being injured by coming in contact with any metal. Inside is a copper wire which carries the mode; while, in connection with the galvanic mode, it produces an oxychloride, which is an astringent, germicide, and antiseptic agent, and is invaluable, in that respect, to the practician.

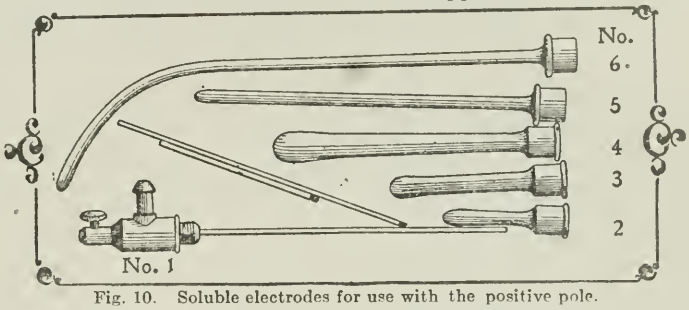

Fig. 10. Soluble electrodes for use with the positive pole.

Normal salt solution (2 grains to the ounce) is used with all these electrodes.

THE task of self-contemplation and self-comprehension is not one which man can take up or let alone as it best pleases himself. It is a necessity, which chooses, and is not chosen. At a certain stage of the evolution of man's rational nature reflection arises inevitably. It becomes the urgent condition of further development. The future can be faced only in the light of the past, which only reflection recovers; and the individual—or a nation—can achieve a new triumph only if he has learned the lesson of his own deeds. Reflection must succeed action and set free its meaning, if better action is to follow.

—Dr. Thomas G. Atkinson.

Coitus Interruptus

As a Cause of Impotence and Neurasthenia

By WILLIAM J. ROBINSON, M. D., New York City

Chief of the Department of Genitourinary Diseases and Dermatology, Bronx Hospital and Dispensary; Editor of The American Journal of Urology, and of The Critic and Guide; Author of "Sexual Problems of Today," "Never-Told Tales," etc.

I HAVE referred several times in previous chapters to coitus interruptus as a factor in the causation of pollutions, spermatorrhea, impotence, and sexual neurasthenia, with their varied and multitudinous symptoms. The subject, however, is so important that I consider it advisable to devote a special chapter to it. I do so because coitus interruptus is one of the most widespread forms of sexual abuse, and because it is, according to my experience, one of the most positively established causes of impotence and neurasthenia.

That some physicians have seen fit to deny the tremendously evil effects of this most unnatural form of sexual intercourse is surprising. It can only be explained by their ignorance, by their lack of experience. To me no fact in medicine is more firmly established than the evil influence of coitus interruptus on the physical and psychic condition of both the man and the woman. That there are some men who may go on practising coitus interruptus for years without material or *ascertainable* injury to their health is admitted. Exceptions are to be found everywhere.

I have known men who masturbated most excessively for years and then indulged in regular sexual orgies for years, who had several attacks of gonorrhea, who became infected with syphilis, and in spite of all this their sexual power remained unimpaired and they did not show a single neurasthenic symptom. But these are exceptions. When we discuss the effects of any mode of life, of any indulgence, of any habit, we have in view the generality of mankind. And on the generality of mankind, I repeat, coitus interruptus has a most pernicious, most blighting influence.

If we should examine carefully and tactfully into the history of the thousands and thousands of weak, anemic, irritable, languid, don't-care-if-I-live-or-not men and women, in a vast majority of cases we should find coitus interruptus to be the underlying cause. It is no use arguing abstractly and sophistically as to what difference it makes whether the semen is deposited within the vagina or outside of it; the fact is, that withdrawal at the moment of highest excitation causes a terrible nervous shock to both the man and the woman, and the results are, as a rule, not long at making themselves felt.

What Is the Proof?

It could perhaps be objected that we ourselves are falling into the *post hoc, propter hoc* fallacy, that because we see thousands of people who practise coitus interruptus become impotent and neurasthenic, it is no proof that it is the coitus interruptus that causes it. There might perhaps be other causes at work. *But this objection falls to the ground when we state that the patients in these cases begin to improve and become well as soon as they abandon the practice of interrupted intercourse.*

Several years ago I was struck by the fact that many people at the age of forty, forty-five or forty-eight were in better health and in every respect better than when they were ten years younger. On investigation it almost invariably proved that the improvement in their health was due to the fact that, on account of the advance in age or menopause of their wives the danger of impregnation having become very slight or *nil*, they were enabled to give up coitus interruptus and perform sexual intercourse in the normal, natural manner.

I could give numerous instances demonstrating the positively injurious effect of coitus interruptus, but as they would be practically repetitions of each other the following case will suffice:

Cases Demonstrating the Effects Upon Man

Case One.—Masturbated as a boy, between fifteen and seventeen. Gave up the habit. Normal sexual relations from twenty-one to twenty-four. Became engaged at that age, married at twenty-five. Never had any venereal disease. Led a normal sexual life for the first three years, during which time his wife gave birth to two children.

After the second child, he began to practise coitus interruptus. A year or a year and

a half later began to notice weakened erections and premature ejaculations. At the same time began to suffer with "dyspepsia." He had severe heartburn, annoying abdominal distention after each meal, constipation. Legs felt hot and heavy, was unable to walk three blocks without getting tired and out of breath. Frequent attacks of cardiac palpitation. Very frequent urination in the day-time, but not at night, which, as we know, is one of the almost pathognomonic symptoms of sexual neurasthenia. But the most annoying and distressing symptoms were the change in his character, according to his wife's statement. From cheerful, he became gloomy, timid, and full of various anxieties. The change in his mood and character was ascribed to his stomach trouble, for which he went from doctor to doctor.

When he came to consult me, he had been suffering for five years. He came for treatment for his impotence, but had no idea that his gastrointestinal trouble had any relation to it. To me the history pointed unmistakably to coitus interruptus as the sole *causa peccans*. I gave him small doses of arbutin, and told him that no treatment would be of any avail unless he began to lead a normal *vita sexualis*. Otherwise his condition would be going from bad to worse.

My advice was followed, and in six months, without any other treatment, he was a well man. In six months more he was unrecognizable. He was as well as he ever had been. His wife's health, which had also been somewhat impaired, became normal, too.

A case like this is of more value than all kinds of abstract argumentation.

Case Two.—Man, married twelve years. Has four children. Has practised coitus interruptus for the last five years. Does hard intellectual work. Has himself felt that this method of intercourse was injuring him. Has become very nervous, urinates frequently, erections weak, ejaculations *retarded*. But his worst troubles are frequent night pollutions, and *spermatorrhea defecationis*. Has lost about twenty-five pounds from his normal weight. Lately has had attacks of vertigo, muscæ volitantes, feels a heavy band around the forehead, is afraid to go alone in a crowded street or theater (agoraphobia). Severe pain in back of neck, legs feel like lead, feet very cold, so that he must sleep with woolen stockings on. The urine is full of phosphates, also contains some shreds, which look like masturbation shreds.

He had been treated by a nerve specialist, but without any avail. I prescribed minute doses of cantharidin for the frequent urination, but told him that he need expect no relief until he gave up coitus interruptus absolutely. He did, and the improvement was immediate. In three months there was practically not a symptom left. The shreds in the urine, as well as the phosphates, disappeared without any local treatment.

Case Three.—A very remarkable case. The man came into my hands only two months ago. Family history excellent: himself always full of the "joy of life," through somewhat high-strung and "nervous." Married nine years. Has two children. The second labor was so difficult that it nearly cost his wife her life; she had some sepsis after the second child, and has never been perfectly well since. For the last five years coitus interruptus. For the last two years complete lack of libido, as if "he was not a man at all." Practises intercourse only once in five or six weeks, but the intercourse is not followed by any ejaculations; only later in the night, if he falls asleep, there is an abundant pollution. In the morning he feels extremely exhausted and depressed. He feels so "unhappy," that he would like to cry, go away and see nobody. To see or talk to people is torture to him.

The last year he has been suffering off and on with obstinate insomnia; for a month or two he will sleep well, then for a month or more he will suffer with the most obstinate insomnia, for which he has been taking increasing doses of veronal; following the veronal, he would feel more depressed than ever. The anxiety-neurosis is very pronounced. Wants to die, and is very much afraid to die. Imagines everybody knows what is the matter with him. Pulse generally about 80, but under the least excitement runs up to 100 to 108. Distention of the stomach after eating. Constipated.

Had never consulted a physician for his condition, as he felt ashamed. Investigation revealed the fact, ascertainable in so many of these patients, that at first the attempt at withdrawal cost him a "superhuman" effort. He would have to gnash his teeth and strain every muscle in his body while doing it. Gradually it cost him less and less effort, but the ejaculation became also gradually retarded, until, as stated above, they ceased altogether. All this pointed unmistakably to coitus interruptus being the direct cause of his condition.

I laid out a course of hydrotherapeutic and general tonic treatment, forbade intercourse absolutely for six months. I saw the pa-

tient yesterday. The improvement in his psychic condition is remarkable. He feels a "new man." For the first time in months he felt a stirring within him of his old libido, and he feels confident that he will get well. And so do I. Though the patient is not well yet, sufficient time not yet having elapsed for a final result, still I consider it worth while reporting, as showing what coitus interruptus may do even with an apparently perfectly healthy man.

Malefic Influence Upon Women

Case Four.—Mrs. X., 32 years old, married eight years. Superb health before marriage. Coitus interruptus since the bridal night, as they thought they could not "afford" to have children. The first two or three years she did not seem to experience any ill effects. Gradually she began to lose desire for conjugal relations, and the lack of desire subsequently became a loathing. She would have severe pains in the ovarian region, pain in the neck, headache, would be depressed and irritated in the morning, with throat and mouth dry, and severe palpitation. She gradually developed insomnia, began to lose flesh, became quarrelsome, and cried hysterically at the slightest provocation. Lately she developed severe gastric symptoms—burning in the stomach before and after eating—and a permanent tachycardia. Pulse always 100. Legs tremble at slightest exertion, or excitement. Well-defined anxiety-neurosis, and talks of death and suicide.

Objectively nothing could be found, except the rapid pulse. Coitus at the present time only about once in two weeks, and always feels worse after. A talk with the husband elicits the information that he practised coitus interruptus with his wife only, as he did not wish to have any children, but that during all these years he also had relations with other women in a perfectly natural way. His potency and general health are unimpaired, and it did not come to his mind that the coitus interruptus had in any way to do with his wife's having become a wreck.

Coitus interruptus forbidden absolutely, and a complete sexual rest for two months ordered for the wife. After that, resumption of normal intercourse. Also general tonic treatment, massage and hydrotherapy. Improvement immediate, but it was ten months before the last symptoms, trembling of the legs, disappeared.

Case Five.—Miss A., school-teacher. Coitus interruptus for the last three years. Presents neurasthenic and hysterical symptoms. Anxiety-neurosis pronounced. Is always afraid something is going to happen, though she can not give any account what that something is or can be. This, however, I admit, is not a proper case to draw any conclusions from, because here the fear of impregnation, on account of her unmarried condition, was so great that in itself it was capable of causing all those symptoms.

She was advised to give up all sexual relations, which advice was followed, with decided improvement in all symptoms, both somatic and psychic. She soon married, her sexual life was normal and her health remained good.

Those who have not seen and therefore are skeptical about the very injurious effects of coitus interruptus are apt to raise an objection, to the effect that the cases I have recounted were probably not perfectly normal to begin with. That they were probably of a nervous temperament, that their parents were neurotic, that they had a hereditary taint, and so on.

I am not going to discuss this point very heatedly, because, as I have said elsewhere, I do not believe in a "perfectly normal" human being. Where is that mythical thing, a "perfectly normal," a "perfectly healthy" man or woman? The apparently perfect specimen sometimes contains deeply hidden a very dangerous moldy spot. And who can tell that some of our ancestors did not possess some physical or mental defect, which he transmitted to his grand-grandchildren, and become manifest in them?

This is all childish talk. We have to take humanity as it is. In discussing human nosology and pathology we do not deal with the exceptions at either end of the scale; we leave out the five percent at either end and take the middle ninety. Or say ten percent at either end and take the middle eighty. And on the middle ninety or eighty percent coitus interruptus produces the effect as described in this brief chapter.

Drinking Water and Water Drinking

From the Records of My Private Laboratory

By B. G. R. WILLIAMS, M. D., Paris, Illinois
Author of "Laboratory Methods, with Special Reference to the Needs of the General Practitioner"

EDITORIAL NOTE.—This is the tenth paper of Dr. Williams' very interesting series upon "Surprises, Delights and Curiosities Encountered in Medical Laboratory Work."

THEODORE ROOSEVELT and myself have for many years been affected with an apparently incurable disease—a severe impediment in our silence. Just now the Colonel is a bit better. But I shall, perhaps, not recover entirely until I am assured that the practitioner has finally deserted the sloppy diagnostic methods and has combined with his bedside evidence proper laboratory data.

The great Austin Flint has ventured to inquire, "How is it possible to treat properly a disease until we determine its cause?" No, the laboratory is not all, not by any means. But it has proven its right to a place. Why peek at the tongue, tap at the shirt-buttons, massage the belly, look wise, and mix up a quarter's worth of medicine for each and every patient while your "dyspeptics" die of gall-bladder abscess, your "anemics" die of Bright's disease and your "cachetics" die of essential anemias?

In this article, my tenth on this subject, I have been forced to desert the field of diagnostics and to devote my attention to some delights of the sanitary water analyses. In the few instances which I have previously detailed, I have attempted to impress my readers with the practical value of this work.

There is need for the man in the field of accurate diagnosis. Every man can not be a specialist in analytical work, but he can apply some of the more simple tests. More than this, he can learn to interpret the results of his colleague's work when he finds this assistance necessary. When he understands the value and limitations of the work, then only will he come to his own. For, in conditions where this is necessary for the sake of himself and his patient, he will see to it that it is not omitted.

The Pollution of the Stream

And it came to pass that a great plague broke out among the inhabitants of Cran. This city was located at the mouth of the Siber and took her water from its current—pure, sparkling water of the northern glacier.

But Hygeia sent Mercury in haste to examine the sources of the stream. Searching well its banks, even in the icy zone, he saw no dead, no filth.

"Look to the air or the earth, Oh, Hygeia, for naught there is in the pure, white North to soil our beautiful river!"

"No men?"

"No dead men—"

"Ah?"

"Only one family—a shepherd, his wife, and their son; the young man sick unto death and needing assistance. That is all."

"Destroy! Destroy!" cried Hygeia, turning to the people. And the great plague was checked.

Yet I see men who have been graduated from our leading colleges during the past ten years search untiringly the banks of a stream for a dead cow or sincerely advise their patients that their typhoid fever doubtless came from the decomposing fish in the stream or from the manure pile in their neighbor's yard. "Smells awfully typhoid-like to me," they add, when explaining the miasm.

Great guns, what do you mean, doctor? That typhoid germs form spontaneously in the odors of cow dung or decomposing fish? And, yet, that is the idea a man evidently intended to convey in a talk before one of our leading medical societies a couple of years ago.

Far be it from me to argue that an elixir of horse manure or a decoction of dead rats is a pleasant or even a healthful drink; but when attempting to locate the source of typhoid fever, look for typhoid-fever patients. Don't expect elephants to come forth from the eggs of the goose (unless, forsooth, you are taking electric bitters at the time!).

Acknowledged that typhoid fever is oft-times spread by flies, by milk, by dust and by contact, it is still spread at times by water even today as yesterday. The death of aviator Wilbur Wright, according to *The New York Medical Journal*, was "not only a national calamity but a national disgrace," speaking of typhoid fever as the cause of death and avoidable water contamination.

I recall having seen one ordinance ordering the installing of a filter for a water supply defeated at the last moment by a slick-tongued lawyer representing the "citizens," on the argument that the subject might as well "be dropped before this community wastes considerable money and makes itself the laughing-stock of the state in an effort to filter water *which is not running.*"

The Typhoid Bacillus Must Be Present

No matter whether a water is clear and sparkling in the light or whether it is a suspension of filth, the bacillus typhosus must be present to cause the disease. Comes, therefore, the usual question. Inquires the bacteriologist:

"Then you would advise me to examine the suspicioned water for evidences of contamination by human beings—human beings with typhoid fever?"

"I would."

"It follows that you would advise me to search for the typhoid bacillus?"

"Yes, it is worth the effort."

"What's that?" gasps the practitioner, "I must search for the typhoid bacillus before I can condemn the water?"

"No, indeed!"

"But I thought you said—"

"*I was answering the expert.*"

And there is the point. While the practitioner may often condemn a water by means of a few simple tests, yet the expert should not be content to stop at this point. But of these things I have written elsewhere and cannot now take the time of my readers. Judging from some of the letters I have received in the past, it makes a Ph. D. awfully mad to tell him to search for the typhoid bacillus. It certainly is a big job and you would be mad, too, if you were in his place. Still, if a man is prepared for the work, the compensation is great and the procedure often no more disheartening when negative results are obtained than when sputum of suspected incipient phthisis is searched for the elusive acid-proof germ.

I am not able to offer a wealth of curious cases in this paper. People usually do considerable talking about the advisability of a sanitary investigation of their well-water—but, then, drinking boiled water is better than paying a laboratory fee, so that they assume that the water is bad and boil it (sometimes).

While I have examined a number of samples during the past few years, I have searched out a few more than those offered for analysis, just for my own amusement and to keep my technic in working order. My observations in two of these are of some interest.

Testing the Well-Water

One member of a family was affected with typhoid fever and recovered. During the next ten years, three other members died with this disease. The chief clinical features in each of these cases were practically identical with those of the others. These patients died as a result of hemorrhages. Blame was laid on the well. At least one neighbor died as a result of this infection. Secretly this well was examined and acquitted. Here is how I reasoned it out: I found no typhoid germs ("Of course not," butts in the Ph. D.), the amounts of chlorine and ammonia were not increased, and the bowel bacilli, especially the colon bacillus, were absent. Therefore this well was not contaminated by human excreta from any privy and was doubtless a good well, its water being safe for drinking purposes.

Although not in a position to prove the fact, this person was certainly a typhoid-carrier, and that, through some careless habit—I know not what—these germs were distributed from the anus to the food of the other members of the family, is my belief.

Physicians who are likely to interest themselves, in the future, in matters of this sort may wonder how these samples from the well were obtained. I might venture that the collector of the water did not call at the house and ask for a drink, but he "happened" to boil the water in the radiator of his machine just in front of the house and so was forced to "borrow" a gallon or so, in order to cool off his motor. All of which shows the possibilities of the motor-car in questions of sanitation.

It is a great mistake to judge as to the purity of the water by the results of the chemical examination of a single sample. The ammonia-content of a certain water was high, but the bacteriological findings gave no indication that fecal contamination was occurring. Finally it was thought best to examine specimens from some other wells in that neighborhood. In all of these, the ammonia was excessive. A slough was located nearby and the source of the ammonia was traced to decaying vegetation in this.

Goiter and Drinking Water

The possible relations subsisting between endemic goiters and drinking water has not been finally proven. Once while working on a problem of this kind I received some rather unexpected assistance. At the time, I was

collecting samples from a river. A German boy became quite interested in my endeavors. One morning he asked me to accompany him up the stream. After an hour's walk he suddenly ejaculated, "There! There! There!"

Floating upon the water were the carcasses of several hundred fish. I shall never forget the look of disappointment which came into that young scientist's eye as I slowly shook my head.

As I have said, typhoid fever always comes from typhoid fever. But it is likely that other diseases may be traced to polluted water. Sewage-tainted water, even though the typhoid bacillus is absent, is not a healthful drink and may cause certain gastro-intestinal disturbances. Particularly is this true in regard to diarrhea and enteritis in infants, as has been indicated by McLaughlin in "Public Health Reports."

Physicians practising near the great lakes should keep in mind the possibilities of the bothriocephalus latus as contaminating the water. Warthin has proven that the measle [scolex.—Ed.] of this worm may sometimes be found in the Lake Superior burbot, and that indigenous cases of bothriocephalus infection in man have been observed in northern Michigan.

American Doctors and Mexican Investments

With a Few Therapeutic Notes

By ROBERT GRAY, M. D., Pichucalco, Chiapas, Mexico

"And oft by yon blue gushing stream
Shall Sorrow lean her drooping head,
And feed deep thought with many a dream,
And lingering, pause and lightly tread;
Fond wretch! as if her step disturb'd the dead."

AMERICAN brothers, do you sometimes pause to reflect seriously, just after supping with your blooming buds of Love around the homely board, what a slight casuality might group you in the mournful list that darkles under the title-line heading this page? I have no buds of Love or Hope, as most of you, my readers, have or fondly anticipate; yet, how often the blighting shadow of the blasted ties of such affection pathetically creeps into the solitary loneliness of my weird, desolate refuge! And the following letter is quoted as the most apt and pertinent of such salutations that have greeted me in an age.

Dear Doctor Gray: Alas! you are too sadly familiar with the story the mournful margin of this paper will tell before you read a line. The companion of your hard and trying life for a season before he was my husband came home in the gray of a chilly September morning, from all-night work, with a congestive chill; and was dead ere he could be put to bed.

I will not trouble you by recounting all that bereavement meant and evolved. His family was penniless. All our luxuries went to creditors. My object, in the selfish strain, in writing is to entreat you to send me a letter that will introduce my son Walter to the famous house where your name will be a passport and secure him some employment. My two girls are employed as typewriters in the big establishments that have grown up here since your time; and I am working at the millinery trade. We are in a little house, but more comfortable than I dreamed could be possible. You know no one of the doctor's family or mine could come to pauperism or receive charity.

But it is fearful to think how many doctors must be trembling on the brink of ruin, since my husband, who was deemed much more than well-to-do, was worse than bankrupt. I remember an article of yours, in *Albright's Practitioner*, some years since, on this subject, over which my husband wept; and I now realize that he was then ruined and was appalled at the aspect you presented.

Your friend and brother physician sleeps in your family burying plot, the first of his family thus to repose since you ceded to him that right. He lies near the heads of your mother and sisters, with his head to the feet of your lost Carrie, over whose grave the sods of the valley were not dry when you returned from the war to view the last time the desolation of your old homestead. Even old Aunt Jemima, your old black mammy, sleeps before the feet of your mother and sisters, while your noble father mingles with unknown vulgar dust—

"On Fame's eternal camping ground!"

The graves of your loved and lost are the best-cared-for of any in the cemetery, by order of the owners of the land you deeded away. That condition, and the one never to rebuild on the old site of your burned home have been faithfully respected. The black, solitary chimneys stand in mute eloquence as sentinels over the sepulchre of your hopes of early life!

I find that bad investments in promising stock that turned out to be worthless ruined my husband and deprived his family of legitimate livelihood; and I wish all doctors could be warned of our fate; for, as you have so often told the profession, through the medium of medical journals, the doctor's lease of life is a precarious dependence on which to predicate the support of a family; and my life was perfect happiness, and no want of

my family was ever denied; yet you can readily imagine the pitiful painfulness through which we passed after the spectral truth was unveiled to our view.

Thanking you in advance for the favor asked, I remain your ever appreciative friend,

LAURA M———.

Why Do Doctors Speculate so Recklessly?

Aside and apart from sombre shadows of personal yore reflected by this letter, it impressed me sadly as the ghastly profile of the dreadful skeleton lurking in the secret corner of the closet of many a doctor's home. Scores and scores of letters come to me from such hapless unfortunates, in quest of new fields of practice under alien skies, telling me frankly that they have been impoverished by trying to get rich by artificial methods, that proved to be fraudulent. But, alas! there is no remedy for such ills; pauper physicians would have a hard row to weed in a foreign land, trying to establish practice among a people speaking an unknown tongue. There is no new medical swindle—schemes launched especially to defraud doctors, known to be the most gullible "suckers" on earth—that does not come down here to me in farthest Mexico.

The families of doctors are generally high-strung and of delicate and sensitive, nervous temperaments, rather prone to a half-recognized aristocratic pride that suffers intensely when forced to descend to the commonplace drudgeries of everyday life.

There is no need of the consequences of reckless investments to render the vital standing of the average doctor below that of common humanity. A halo of peril ever wreathes about his devoted head. He is never safe from an urgent call to the shambles of epidemic havoc; and when there, few know more truly well than my trying experience teaches what his doom may be. I am the only old doctor in all this sickly belt, and the only one with none but a purely professional motive to live. What scores of young and hopeful practitioners have fallen along the wayside over which I passed unscathed! And so many of them—really most of them—left families without adequate means of support—some of them even absolutely destitute and in want.

The intense anxiety to provide for the loved ones must be the incentive that actuates so many doctors to make rashly insensate investments, that not only yield no dividends but never return one cent of the principal; and it is past understanding how so many persist in the same course of silly ventures, after such elaborate exposures of the frauds in the medical journals.

Preventing and Curing Smallpox

I have had some recent rather singular experiences. A man, long the victim of chronic catarrh of the stomach, was exposed to smallpox and lived in mortal dread. I purged him liberally, then gave him calcium sulphide and macrotin, to the limit, for fourteen days. He never had a symptom of smallpox, but would have died of sheer fright had the disease actually supervened. But the man *was* cured of the catarrh of the stomach; and I am now in a quandary as to what cured him, as I once treated him for months without benefit. How much fear contributed to his cure is a question.

I once had an Irish yellow-fever patient cured and sitting up, who had been delirious and never out of his room after his attack, who, when he learned from me what disease he had, said, "Thin oi'll doi!" And he slipped out after night, drank his fill, and was dead in a gutter in the morning. Whether he died from fright or from the paroxysm of intoxication I am unable to say, though I hardly believe the whisky alone was responsible for his death. Hence fear may have contributed to the cure of that catarrh of the stomach.

I gave the same treatment in a number of cases I diagnosed as incipient smallpox, and the patients escaped the disease. One feature of the frightened man's treatment I omitted to state: hot spongings with saturated solutions of epsom salt. All the suspicious cases got the same treatment; and most of the persons had been exposed to the disease so virulent that sixty percent of its victims died. Yet where scientific medicine met it the march halted. Three patients appeared in the capitol of this department and were isolated, no new cases resulting; while the disease was epidemic six months in the capitol of the state of Tabasco, whence it came into this belt. I did not treat a genuine case, as I was on the rubber plantations during earlier stages, where the pestilence did not enter.

The Virtues of the Magnesium-Sulphate Lotion

I do not believe, after all that Doctor Burgess has said, that the American profession realizes the intrinsic merit of epsom salt, outside the common rut of employment as a purgative. I cure all cases of erysipelas, complicated or mild, through the medium of the external application of this salt, in

conjunction with calcium sulphide internally. Choksy and Lucker have reported over seven hundred cases of erysipelas treated externally with epsom salt, in a highly interesting paper printed in *The Lancet*, London, resulting in uniform cures, save a very few seriously complicated old cases.

I reduce inflammations, rheumatic or otherwise, whose numbers are legion, and almost every painful contingency, with the saturated solution; and get admirable results by the application of clysters in ulcerated typhoid or other enteric fevers. And the same solution, hot as can be borne, in cloths doubled several times, and covered, to retain the heat as long as possible, changing the cloths repeatedly, puts antiphlogistine to shame in any place where the profession employs that convenient application. In incipient smallpox and measles it has no peer.

The commonplace simplicity of this substance puts it beneath the contempt of the average practitioner, to his own misfortune and many times to the prejudice of his patients. As to calcium sulphide, the commercial article is so positively worthless that its disrepute is not strange; yet the substance is offered of legitimate standard strength by some manufacturers in the United States, and they are well known to the profession.

Anginal Paroxysms During Anesthesia

By F. H. McMECHAN, M. D., Cincinnati, Ohio

ANGINAL paroxysms as a distressing and dangerous complication of general anesthesia are either of infrequent occurrence or else they have been confused with that syndrome of symptoms occurring during narcosis and usually attributed to the untoward effects of alcoholism, hysteria, moral degeneracy and drug-habituation.

The occurrence of five instances of anginal paroxysms during an experience of six years as staff anesthetist would indicate that the condition arises more frequently than has been reported. These cases are cited to show the effective use of amyl nitrite by inhalation to counteract the acute paroxysmal attack, and also to emphasize the necessity of preliminary prophylactic medication with cerebral and cardiac sedatives to anticipate and avoid the occurrence of this complication.

It need scarcely be said that patients giving a history of previous anginal or pseudoanginal attacks should be anesthetized with the utmost caution, utilizing every proper measure to prevent such paroxysms, and of having amyl nitrite at hand for inhalation should the paroxysms supervene.

The Etiology of Angina

Stevens defines angina as a symptomatic affection most commonly associated with occlusion of the coronary arteries and degeneration of the myocardium, and characterized by severe paroxysmal pain in the region of the heart, respiration and circulatory spasm, and unconsciousness of varying depth and intensity. It usually develops after middle life and is more common in men than in women. The predisposing causes are arteriosclerosis, alcoholism, gout, syphilis, and Bright's disease. In some instances a hereditary tendency has been noted, and not infrequently the attacks have been preceded by prolonged physical exertion or mental anxiety. Pseudoangina is sometimes associated with hysteria, reflex irritation or the excessive use of tobacco. Postmortem findings show obstruction of the coronary arteries from atheroma or thrombosis with consequent degeneration of the cardiac musculature.

Anginal paroxysms, aside from those occurring during anesthesia, are usually precipitated by emotional or physical excitement or by indigestion, and are characterized by severe pain radiating from the heart to the shoulder and down the left arm, paleness, anxious expression, a sense of suffocation and impending death, dyspnea, and fixation of the body. The pulse is generally retarded and often uncountable on account of the spastic condition of the arteries.

Pseudoangina occurs chiefly in women of a neurotic temperament and in drug-habitués, it is unassociated with organic heart lesions, rarely induces fixation of the body, while the attacks are of longer duration than those of true angina, with accompanying hysterical or hysteroneurasthenic manifestations.

The Treatment of the Paroxysms

Inhalation of amyl nitrite and hot applications to the precordia offer almost instant relief from the acute paroxysm. Nitro-

glycerin hypodermically in doses of 1-100 grain, or morphine and atropine, or hyoscine-morphine-cactin may be necessary to obviate completely the tendency of the paroxysms to recur. In the pseudoangina of indigestion sodium bicarbonate, to produce eructations or emesis, will afford speedy relief.

During the intervals between attacks the iodides may prove of service in the arterio-sclerotic tendency. Mental and physical rest, light and nutritious diet, and tonics such as iron, arsenic and cactin are indicated.

The prognosis is grave; sudden death may be expected at any time. The prognosis is more favorable when the paroxysms are mild, of infrequent occurrence, unassociated with organic heart lesions, and brought on by exertion or mental anxiety.

So much for the medical aspect of angina pectoris. With regard to the occurrence of anginal paroxysms during anesthesia, similar etiological factors prevail, namely, alcoholism, hysteria, moral degeneracy, and the excessive use of tobacco. The most important pathologic feature is that obstruction of the coronary arteries produces the attacks.

Cash's Experience With Chloroform

In a recent report to the Society of Anesthetists, Cash, senior anesthetists to the London Infirmary, established the fact that chloroform, during inhalation narcosis, not only reduced the oxygen-carrying power of the blood but also contracted the coronary arteries of the heart. The occurrence of anginal paroxysms almost immediately upon the inhalation of chloroform, in the cases to be cited, and the continuation of this spastic condition during narcosis goes far toward corroborating Cash's investigations. These cases were as follows:

Case 1. Private patient, nervous, middle-aged Jewish woman, with large mammary abscess requiring incision and drainage. A first attempt (on the part of another physician) to anesthetize this woman with chloroform was abruptly discontinued on account of a sudden spastic condition which developed after the first few whiffs of the anesthetic.

It was the author's unpleasant experience to attempt the second anesthetic effort. With the previous occurrence in mind, etherization was tried, but the patient merely became flighty and extremely talkative. Switching to chloroform by the drop-method the anginal paroxysm promptly supervened. The entire musculature of the body became spastic, the face staring and the eyes fixed. The pulse became hard, then uncountable because the tension of the radial artery resembled that of an E-string on a violin. A 5-minim pearl of amyl nitrite was immediately crushed on the inside of the mask, and its inhalation by the patient caused rapid resumption of the arteriole circulation and a partial relaxation of the spastic musculature.

The abscess was incised during this interval, without any consciousness of the procedure on the part of the patient, although not enough chloroform had been given to even make the patient drowsy. The corneal reflex was absent. Realizing that the amyl nitrite was sufficiently effective only fleetingly, a hypodermic of nitroglycerin, 1-100 grain, was given, after which the relaxation of the paroxysm was speedy and the patient promptly recovered. A decided diminution in the hysterical condition of the patient was noted.

Case 2. Patient, a woman of 33, with nymphomaniac tendency, came into the female operating room at St. Mary's Hospital, for the removal of an epithelioma of the vulva. She gave a history of two previously unsuccessful attempts to be anesthetized by chloroform at other hospitals. Consequently etherization was tried, but the anesthetic only made the patient brilliantly conversational. Five hundred Grams of Squibb's ether was used without the slightest symptom of approaching drowsiness supervening, and this by the closed cone.

The surgeon, growing impatient, requested a change to chloroform, which was promptly made by the open drop-method, with the result of a still prompter occurrence of an anginal paroxysm following the first few whiffs of the anesthetic. A 5-minim pearl of amyl nitrite was immediately crushed on the inside of the mask, and partial relaxation followed the inhalation of the drug. Again the radial artery had the feel of an E-string. A change back to ether was made, but the patient began to come out and chloroform was again tried. A partially satisfactory narcosis was induced, although the use of another amyl-nitrite pearl was necessitated some five minutes later to relax sufficiently the paroxysmal spasticity of the musculature and of the respiratory and circulatory systems.

In this case the anginal paroxysm was inclined to persist throughout the operation. The effect of amyl nitrite in restoring arteriole circulation and relieving the spastic condition of the arteries was marked in its immediate effect, but its influence was fleeting. This patient later gave a history of previous anginal attacks.

Case 3. A neurotic woman of 35 came into the female operating room of St. Mary's Hospital, for appendectomy between attacks. Several days were consumed in persuading the patient to submit to operation. She finally consented and went to the table, apparently resigned. The surgeon on service at the time had a predilection for chloroform in all cases, so that this anesthetic was used. A few whiffs of chloroform by the drop-method brought on the anginal paroxysm. A prompt use of an amyl-nitrite pearl relaxed the musculature and circulation. The patient regained consciousness speedily, and narcosis might have been resumed had she not sat up and absolutely refused to be operated upon under any circumstances whatever. No amount of argument or persuasion could alter her determination and she was returned to bed, the surgeon washing his hands of the case.

The woman left the hospital, but several months later was compelled to return for operation during an acute attack. On this occasion she was given preliminary hypodermics of hyoscine-morphine-cactin, followed by etherization by the drop-method with a Ferguson inhaler. Her radial pulse gave some indication of the paroxysmal tendency, but a typical paroxysm did not occur, although several times during the operation her condition gave alarm.

Case 4. Patient a man of 28, inveterate smoker, with a history of tobacco-heart and hysteroneurasthenic manifestations obtained from the family physician. He came into the male operating room at St. Mary's for an appendectomy between attacks. Ether was used by the drop-method, but uncontrollable jactitation supervened. The operator requested a change to chloroform by the drop-method, with the consequent occurrence of an anginal paroxysm after the first few whiffs of the anesthetic. Amyl nitrite was promptly used, whereupon the spastic condition relaxed sufficiently to continue a barely satisfactory narcosis with ether. Neither the lid nor the swallowing reflexes could be abolished in this case, irrespective of the amount of ether used or the concentration of its vapor. The spasticity of the musculature and jactitation persisted throughout the course of the operation. The patient was never really fully narcotized, coming out while the dressings were being applied. He made a good recovery.

Case 5. A peroxide blonde of 40 came into the female operating room at St. Mary's, for the removal of a diseased ovary. The sister-nurse in charge of the case gave a history of associated hysteroneurasthenic manifestations. An attempt was made to anesthetize the patient with the Gwathmey apparatus and a small percentage of chloroform vapor. But the anginal paroxysms promptly supervened and the spastic condition was only partially relaxed by the inhalations of amyl nitrite. Narcosis was maintained unsatisfactorily by ether vapor and chloroform in combination. Rigidity of the recti muscles persisted, and the patient did not become entirely quiet until almost at the close of the operation. Half an hour was consumed between the first inhalation of the anesthetic and the initial skin incision, and during this time it was very questionable whether any operation could be performed. The patient made a hysterical recovery from the narcosis, but later showed a decided diminution in her hysterical tendency. There were indications of alcoholism and drug-habituation in this case, aside from the moral stigma involved.

Care Necessary With the Weak

In anesthetizing neurotics, alcoholics, moral degenerates and drug-habitués considerable judgment must be exercised, and surgeon and anesthetist must cooperate to secure the most satisfactory condition possible, which is accomplished seldom enough even by their joint efforts.

The use of nitrous oxide and oxygen in the neurotic will occasionally render the induction of narcosis more satisfactory, while often in alcoholics it will scarcely suffice to produce even an analgesic condition. Followed by ether the sequence is one of the accepted methods for these difficult cases. Ethyl chloride seems to act better than nitrous oxide as a preliminary anesthetic, in that it has not such a decided asphyxial element as gas. Muscular rigidity, always a troublesome complication in these cases, is inclined to persist throughout the course of any operation, and should the surgical procedure involve considerable reflex irritation, it is all but impossible for the anesthetist to maintain a satisfactory condition of the patient even under deep narcosis.

During the conduct of such narcoses the anesthetist is at a loss to gauge properly the depth of anesthesia, since, as Snow pointed out, hysterical patients may display an absence of the lid and corneal reflex, although surgical anesthesia has not been established.

In the alcoholics, spinal analgesia offers considerable improvement over the methods of inhalation narcosis. There is no struggling

no muscular rigidity, and no congestion of the operative area due to cyanosis, with consequent inconvenient hemorrhage. If generalnarcosis is desired, ethyl chloride as a preliminary to etherization is the anesthetic of choice.

Carter is quoted by Hewitt as furnishing the details of a case in which the patient, a morphinomaniac, showed extraordinary immunity to the effects of chloroform. An hour and three-quarters were spent in inducing anesthesia and eight ounces of chloroform expended.

The chief difficulty met with in tobacco-habitués is jactitation or else an exaggerated spasm of the musculature of the jaw, mouth and neck.

In conclusion it should be emphasized that patients in whose anesthetization complications are liable to arise should receive preliminary doses of chloral and a bromide, veronal, or hyoscine-morphine-cactin hypodermatically. Also the anesthetist, in dealing with neurotics, alcoholics, moral degenerates and drug-habitués, should always have at hand amyl nitrite for inhalation, should anginal paroxysms supervene. In the presence of this distressing complication no technic of narcosis has so far proven itself entirely satisfactory, so that prophylaxis, if possible, should be utilized to prevent the occurrence of the attacks.

The Papyrus Ebers

An Ancient Egyptian Medical Treatise

By CARL H. VON KLEIN, A. M., M. D., Chicago, Illinois

THE Papyrus Ebers is named after Georg Ebers, who occupied the chair of egyptology at the University of Leipzig, and was renowned for his Egyptian work and other egyptological writings. He was born in 1837, and died in 1898.

The term papyrus comes from the botanical name of the plant—cyperus papyrus—from which writing material was prepared. The papyrus (now almost extinct) is a sedgelike plant of great size, a single triangular stalk, like the bamboo, growing to about ten feet in height, and being of the thickness of a man's arm. Our term paper is directly derived from the word papyrus, this latter designation being also applied to the prepared writing sheets. The mode of making these papyri was as follows:

The interior of the stalks, after the rind had been removed, was cut into thin slices in the direction of their length. These then were laid side by side on a flat surface and similar slices were placed over them at right angles, whereupon they were cemented together by a peculiar glue and subjected to pressure. When well dried, the papyrus was completed. The length of the slices depended, of course, on the intended width of the sheet, while the sheet could be made of an indefinite length by going on adding strips upon strips to the under crosswise layer. These long sheets, extended at will, were rolled up like a window-shade and preserved in cylinders, such a "rouleau" taking the place of our modern books—indeed, our term "volume" still reminds us of those "volutes."

The ancients used black ink for their text, but each sentence was begun with red ink; whence our "rubric" (from *rubrum*, red). Each sheet forms a column in boldly written characters that stand out in a sort of bas-relief, and these are read with the greatest of ease, since there are no stops. However, some difficulty is found in joining the letters in deciphering the words and discovering the sense of the phrase. All the papyruses that have been discovered in underground places are well preserved. Anyone who appreciates the conserving power of dry sand, as also that of hot dry air, in the almost rainless region of the valley of the Nile, will realize that these conditions have largely aided in the preservation of the easily destructible vegetable fiber of the plant.

The writing of the Papyrus Ebers is hieretic, or sacerdotal, which characters stand in about the same relation to the hieroglyphics as does our cursive writing to the printed text.

Discovery of the Papyrus Ebers

No better history of the discovery of this priceless document can be attempted than the one given by the illustrious Ebers himself, which possesses all the characteristics of a romance.

In the winter of 1872–'73, Georg Ebers and his friend Ludwig Stern, of the University of Leipzig, spent several months at Thebes in

quest of rare documents. For some time the two scientists made their dwelling place in one of the tombs of Abdul-Gurnah and associated daily with the Arabs of Luxor. A wealthy citizen of that place showed Ebers the antiquities which he, little by little, had obtained from a fellah on the other side of the Nile. One day he exhibited one of those texts that are known under the name of "shai-en-sensin," and also a wooden Osiris statuette in which a papyrus was well concealed.

Inasmuch as the Arab did not trust himself to unfold the perishable manuscript, Ebers bore in mind the "shai-en-sensin," and let its possessor, who demanded an excessive price, know that similar texts had been found and that he could not consider its purchase without first seeing the contents of this papyrus, but that, if it proved anything really valuable or rare, he should not hesitate to pay well for it. The next day the Arab sent for Ebers and, on the latter's arrival, took from a tin case a well-preserved papyrus roll.

According to the Egyptian possessor, this papyrus had been found in a tomb in the socalled Il Assiût (part of the necropolis of Thebes) between the legs of a mummy. Since the finder of the latter was dead, it was impossible to refer to the exact tomb that formerly contained the treasure.

When the costly manuscript was unfolded, Ebers, on close inspection, made the startling discovery that it was a document of great value and in an unusual condition of preservation. Ebers says he can hardly describe the impression that this precious, delightfully written and undamaged memorial made upon him. The first lines on which his eyes fell belonged to a fragment of a calendar that he had known for a long time.

This little document, so exceedingly important to the Egyptian chronology, had, years ago, been shown to the renowned Egyptologists Duemchen, Naville, Brugsch, Eisenlohr, and, in 1870, to Ebers himself; that is, in the form of a copy belonging to a Mr. Smith, an American resident of Luxor, who maintained that he was the possessor of a long medical papyrus. Because of an affection of the eyes, contracted while copying inscriptions, Ebers was prevented from studying the Smith copies, but Professor Eisenlohr, of Heidelberg, succeeded in obtaining a drawing (by means of tracing) of the fragment of the calendar. This reproduction was then regularly advertised in a periodical devoted to the Egyptian language and archeology, but without success.

Outside of the already mentioned fragment of the calendar, not a line of the papyrus was known. Mr. Smith claimed to have possessed a roll from which he had copied the fragment of the calendar; in reality, however, he possessed only a copy that was the product of his own handwork. Thus Ebers knew the true possessor of the precious document, and he resolved from the first to obtain it. The price demanded was high, but not higher than had been paid for less handsome papyri.

The same winter an Englishman attached to the British Museum was traveling through Egypt and, being aware of the treasure at Thebes, intended to purchase the same from Mr. Smith, whom he believed the possessor of the true papyrus. Ebers longed to possess the document himself, but had not the means to meet the demands of the owner, who, indeed, was not altogether aware of its actual enormous value. However, receiving financial assistance, graciously advanced to him by Max Guenther, Privy Councilor of Commerce at Leipzig, who just then was visiting the Egyptian monuments, Ebers was enabled to possess himself of the coveted papyrus.

With the newly acquired treasure they proceeded to Cairo, where they had an opportunity to glance over the contents of the fragile roll. His friend, Professor Stern, remained behind in Egypt. Arrived at home, Ebers completed the work of translation, which later he showed and explained to his sovereign, the lamented King John of Saxony, who was a man of letters in the broadest sense of the word. It was eventually turned over to the University of Leipzig for safe-keeping.

In order better to preserve the valuable antiquity, and so that it may be exhibited to the many visitors, it has been cut into twenty-nine pieces of different lengths. Each piece lies under a glass plate, so as to avoid pasting. Those written on on both sides are placed between two glass plates.

Description of the Papyrus

When Ebers came into possession of the papyrus, it consisted of a single tightly rolled piece of the finest yellow-brown papyrus. The width was found to be thirty centimeters, and the length of the written part 20.23 meters. No other papyrus known to Egyptologists is better preserved.

The text of this perfect ancient record is divided into columns, each of which is numbered. The column numbers are placed over the first line on the middle of each column, which contains either twenty-one or twenty-two lines. With the exception of the third

to twenty-first, which are considerably smaller, the columns are twenty-two centimeters in width, and run from numbers 1 to 98, and those on the back sides from No. 99 to No. 110. Those latter were also compiled under the government of an unknown Hyksos king. From this fact it is generally accepted that the Ebers papyrus is a copy, and not an original. Moreover, the many corrections made by strange hands and the many critical marginal notes found throughout the papyrus show that, indubitably, the document has been worked on.

The Contents of the Papyrus Are Medical

A large proportion of the diseases known to modern medical science are carefully classified and their symptoms minutely described. Mention is found of the following diseases, together with their treatment:

Diseases of the Abdomen: Abdominal tumors and swellings; obstructions of the abdomen; swellings in the inguinal region; affections of the stomach, esophagus, pylorus, and small intestine, also obstruction of these organs; inflammations; diseases of the liver; affections of the intestines; intestinal wounds; belching; cramps; jaundice; chlorosis ægyptiaca.

Diseases of the Bladder and Urinary Organs: Obstruction of the urinary passages; cystitis; retention of urine; polyuria; hematuria; diabetes mellitus; blood in the urine; hypertrophy of the prostate gland; stricture; dysuria; strangury in children.

Diseases of the Rectum and Anus: Tumors; inflammatory abscesses; prolapsus; affections of the vessels; inflammations; obstructions; diarrhea; dysentery; constipation; pain.

Diseases of the Chest and Respiratory Organs: Diseases of the bronchi; affections of the lungs; asthma; phthisis; general diseases of the chest; sequels to diseases of the stomach.

Diseases of the Heart: Fatty degeneration; dilatation; carditis; angina pectoris; hypertrophy; thrombosis; anasarca.

Diseases of the Eyes: Conjunctivitis; iritis; blear eyes; hyperemia; granulations; albugo and leukoma; vascular cicatrix of the cornea; corneal opacity; staphyloma of the cornea; inflammation; myiodesopsia; hypopyon; stenosis; contractions; strabismus; xanthelasma; fatty degeneration; abscesses; chemosis; suppuration; amaurosis; amblyopia; cataract; paralysis; blepharitis; injury; calcification of the meibomian glands; distichiasis; trichiasis.

Diseases of the Ears: Impaired hearing; inflammation; viscous humor; suppuration; fetid pus; foreign bodies.

Diseases of the Nose: Tumors; coryza; influenza; mucus.

Diseases of the Head and Neck: Tumors; migraine; neuralgia; shooting pains; vertigo.

Diseases of the Scalp: Tumors; alopecia; superfluous hair; eruptions. Here there are also prescriptions for preventing hair from turning gray, to promote its growth, to produce its growth on bald heads, to make it grow on cicatrices, to depilate the scalp; to prevent white hairs from coming in the eyebrows; and to dye the hair.

Diseases of the Face: Sunburn; freckles; wrinkles; discoloration; roughness; blotches.

Diseases of the Tongue and of the Teeth: The ailments of the tongue are not specified. For the teeth, however, there are prescriptions for strengthening them, to make them grow, to heal ulcers of the gums and swelling of the gums, and to cure bloody congestions of the teeth.

Diseases of the Skin: Pains; pustules; prurigo; swellings; tumors with fetid suppuration; lesions; fistulas; leprosy; eczema; scabies; rashes; itching; burning; cankers; boils; carbuncles; furuncles.

Diseases of the Blood, Arteries, Veins, and Nerves: Distoma; hematobium; extravasations; congestion; coagulation; numbness of the vessels; loss of suppleness; weakness of the nerves.

Sores and Wounds: Blows that have cut the flesh; blood in the opening of the wound; gangrene; eschar formation; pus; contusions; cuts; pricks; bites of man or beast; thorns; splinters, etc.; and their treatment.

Burns: Sores which result from burns; poisonous burns; spots or white cicatrices which such sores leave; alteration of the hair on the burnt surfaces.

Diseases of the Limbs: Trembling; pain; swellings; stiffness; bent limbs; itching; tumors; lesions; filaria medinensis; tired limbs; perspiration of the feet; sore toes; corns; bunions, and callosities of all sorts; falling nails.

Diseases of the Female Genitals: Tumors and abscesses in the vagina; inflammation of the vagina; twinges in the vagina; chafing due to inflammation in the vagina; ulceration of the womb; pain in the labia; abscesses of the labia; menstrual disturbances; fluor albus; affections of the mammary glands, etc., and their treatment.

Maternity: Methods to induce abortion; to prevent abortion; to replace a prolapsed

uterus; to deliver a woman; to perform a version during delivery; to deliver the placenta; to restore the vagina to its normal condition; to prevent retention of urine; to stop hemorrhage.

Hygiene: Deodorizing and fumigation of dwellings; perfumes for women, to render the odor of the house, clothing, and breath agreeable; to destroy insects, reptiles, and plant-lice; to prevent wasps and mosquitoes from stinging; to prevent mice and rats from gnawing things; to prevent birds from eating crops; to prevent rodents from devouring corn in the granary; to destroy lizards and scorpions.

The Ancient Egyptian Medical Treatment and Prescriptions

We find that those ancient Egyptians, after duly reflecting on the important anamnestic facts, on the subjective disturbances or disorders, and the objective or demonstrable changes, they then prescribed the treatment, selecting a remedy which was either aimed at the principal subjective disturbance of the patient, or at the most striking objectively manifested symptom; but often symptoms of the disease were regarded as the disease itself. It is not unreasonable to assume that in difficult cases of sickness consultations were held.

As an example of diagnosis, let us see how our modern disease "appendicitis" is described (in the last part of column xxxvi and the fore part of column xxxvii). After giving the initial symptoms in the development of the disease, the author proceeds as follows:

"If thou examinest a person whose stomach is affected, all his limbs are heavy, as one attacked with palsy, then lay thy hand on his stomach; and findest thou that his stomach is swollen and that it goeth hither and thither under thy fingers, then say thou of it: there is a defect in the digestion of food. Let him have no more food. Make for him a perfect purgative. . . . Examinest thou him after this is done and thou findest his loins are hot, his belly cooled off, then say thus: the defect in digestion is relieved. Let him cleanse his mouth of all phlegm.

"If thou examinest a person who has internal obstruction and an inclination to vomit, the disease in his sides is like balls of excrement, then danger is developing in his sides, and it is his stomach that is obstructed. Order for him the following soothing remedy to drink. . . . Examinest thou him after this and findest his disease as before, then the healing is indicated.

"If thou examinest a person whose stomach is affected, he is sick in his arm, in his breast, and in the region of his stomach, and he has been informed that it is the *natch*-disease, then say thou of it: it is death that has penetrated the mouth and lodges there. Make for him a piercing remedy from the plants. . . . Put thou thy hand on him; his arm may be stretched out with ease and without pain. Say thou: this affliction has gone down through the large intestinal canal and out of the rectum. I shall not repeat the remedy.

"If thou examinest a person whose stomach is affected, he vomits repeatedly and thou findest something protruding from the inside toward the front, both of his eyes are dull and his nose stopped up, say thou of it: it is decomposition of his excrement, it does not pass through his cecum as excrement. For that prepare thou for him: Wheat bread, absinthe in unusually large amounts, garlic a little vesselful added [continued on column xxxvii], together with cloves, with beer, fat beef, to be eaten by the patient and to be drunk with beer that is brewed from several ingredients, in order to open both of his eyes, to open his nose, and to effect the passage of excrement.

"If thou examinest a person who has an obstruction in his stomach, then lay thy hand upon it. Findest thou that his disease has increased under the fingers laid upon him, then say thou of it: it is the cecum disease, the ulcers have not been relieved. Make for him the herb remedy"—the description of which then follows.

Not only diseases producing suffering in mankind claimed the physician's care in those days, but he had also to consider the toilet. Seventy-four prescriptions alone relate to hair washes, dyes, oils, and depilatories. The papyrus mentions more than 700 different substances, from the animal, vegetable, and mineral kingdoms, which act as stimulants, sedatives, motor excitants, motor depressants, narcotics, hypnotics, analgesics, anodynes, antispasmodics, mydriatics, myotics, expectorants, tonics, dentifrices, sialogogs, antisialics, refrigerants, emetics, antiemetics, carminatives, cathartics, purgatives, astringents, cholagogs, anthelmintics, restoratives, hematics, alteratives, antipyretics, antiphlogistics, antiperiodics, diuretics, diluents, diaphoretics, sudorifics, anhydrotics, emmenagogs, oxytocics, ecbolics, galactogogs, irritants, escharotics, caustics, styptics, hemostatics, emollients, demulcents, protectives, antizymotics, disinfectants, deodorants, parasiticides, antidotes, and antagonists.

Medicines are directed to be administered internally in the form of decoctions, infusions, injections, pills, tablets, troches, capsules, powders, potions, and inhalations; and, externally, as lotions, ointments, plasters, etc. They are to be eaten, drunk, masticated or swallowed; to be taken often, once only (often for many days), while the time of taking is occasionally designated, as, mornings, evenings, at bedtime. Formulas to disguise bad-tasting medicaments are also given.

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[We take pleasure in informing our readers that Dr. von Klein, the author of this article, has completed the translation of the Papyrus Ebers. He has spent twenty years in this labor of love, and we are prepared to vouch for its fine scholarly character, having had an opportunity to examine it in person. When complete, the book will contain about 650 pages and will be printed in two colors—red and black, with several plates. It will be published in one volume at the price of $5.00. Dr. von Klein informs us that the edition will consist of 1000 copies only; about 700 have already been subscribed for, and about 300 more are still available. These should be taken quickly. We advise the readers of CLINICAL MEDICINE to show their appreciation of Dr. von Klein's fine efforts by sending him their orders direct, in care of the John Crerar Library, Chicago. Practically every member of the staff of CLINICAL MEDICINE has subscribed for this work, which shows the estimate in which we hold it.—ED.]

If I Had a Million!

Some of the Things I Should Do With It

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

SOMETIMES it is good to dream dreams. Sometimes they come true. For years I dreamed of a trip down the Mississippi on a houseboat, and at last it materialized—resulting in memories worth much. Cost? Which is worth more to me, the man, the memories, or a few hundred dollars in the bank?

Money in bank is useful, but only as it may be transmuted into something alive—worth while. Suppose by some impossible concatenation of circumstances I should come into possession of a million—or of the income from that sum—what would I do? Drop all pretense, and consideration of what the world might say, or people think, or posterity favor, and what should my soul most love?

More than all else, I love children. All little ones have an irresistible attraction for me; and as to the children, they look me over and through with their wide-open eyes that are a part of the brain, and without ado simply take possession—swarm over me, climb on my knees, and when these are full crawl up to kiss the bare spot on the back of my head. There is something touching in the way they seem to recognize in me their own, and annex me without question.

I Should Look After the Stray Children

With that million, then, I should proceed to gather together all the stray fatherless little ones to be found—children who need a father and have none; take them to my place on the shore of Lake Michigan, near Muskegon, and turn them loose; where they can educate themselves and have the time of their lives.

They should follow evolutional lines—build nests in the tree tops, brush houses, dig caves, trap animals, fish, plant and care for gardens, chickens, pigs, cows, ducks; and follow the development, as it comes naturally, with book-lessons. The girls should sew, cook, practise with their dolls the arts of the household, and all that. Botany, zoology, geology should be studied as the field supplies materials. Every flower, fruit, mushroom, tree of that wonderful region should be collected, its conditions noted, and the powers of observation trained.

The boys should develop the principles of honor and justice, innate in them until weakened by example. Truth, courage, perseverance, industry, the things that make real men, should be the curriculum rather than grammar and arithmetic. The balance between that enterprise with personal advancement that makes the successful man, and whose excess leads to oppression and tyranny, and the altruism that makes society possible and the world worth living in, but whose excess leads toward the Chinook potlatch, should be sought. The girls should develop into lovable, loving helpers, as they always do when conditions allow.

Summer ending, and when the cold of fall approaches, part of the colony should prepare winter quarters there, and the delights of the northern winter, with its long hours for book study also, should occupy the hardier members. The others should board a steam or gasolin boat and voyage down the lake, canal and river, to the gulf, where, somewhere, a winter home should be developed along the same lines—probably in Florida—where a water front, well wooded, with opportunities for fishing and hunting, were afforded.

Results—a wholesome, happy life, education along natural lines, well balanced and rounded out, due attention being given to the physical, mental, and moral needs of each individual; and every child surrounded with an atmosphere of love and activity, that should endow it with the best-possible elements for success in its future.

The Boy Problem

Few persons seem to realize what boys should be. Many judge them solely from their own viewpoint and praise that boy who gives them the least trouble. Girlish boys are of little value in after life—the irrepressible pushing, grasping, noisy, fighting, scheming, domineering leader in mischief, the one who asks questions instead of learning his lessons by rote, is practising for future leadership among men. The boy who gives no trouble is not likely to be a successful fighter in the battles of life.

The qualities that make boys troublesome should be studied and so directed as to lead to useful results. Give me the wildest boy in town, and you may have the one who is content to wear a Fauntleroy suit and tries to keep it clean. Twenty years hence your boy will be clerking for mine.

Every boy begins with a sense of rectitude that is natural to him. Bank on it, recognize it, cultivate it, and the boy is your chum. If he is not, you are not the man to raise that particular boy. Boys are their own best disciplinarians. They instinctively abhor a yellow streak in their mates, and will do far more than you can to eradicate it.

A children's court should be one of the first things instituted. This tribunal should have jurisdiction over all disputes between members, and apportion the duties of each; for everybody should have certain tasks to be fulfilled for the common benefit. The character of and hours for work, for study and for play, and all the multifarious questions sure to arise in any community should be settled by the children themselves.

As to work—there are trees to be felled, roads to be cleared and graded, sand hills to be cut down, houses to be built. A capable man should show the boys how to mix and mold cement blocks, and how to build a chimney that would not smoke. A good carpenter should direct the erection of the cottages, and a farmer supervise the planting and cultivation of the garden. Every child should have a plot for personal care and profit. Parasites on fruit-trees should be sought and spraying done properly. The motor boat and automobile should give the mechanically inclined congenial occupation, and canoes and skiffs enable all to attain proficiency in their management. Fishing, netting, shooting and trapping game, so far as they might be pursued in accord with the laws of the state, offer an outlet for many a boyish spirit. A weekly dance; an assembly room where we ourselves furnish the entertainment; indoor games for wet weather, and every known outdoor sport in their season, and such moral training as does not warp or prejudice the plastic minds of the young are to be included in our plans.

The Growing Boy's Education

Especially should the principles of sanitation be taught. Every case of illness should be traced to its causes, and these made plain to every member, as well as the means of avoidance.

The education of a boy commences with his birth. Only a small part of it comes from school studies, although this is essential; but when one reflects how tedious is this part and how the pupil rebels against it, he can but wish that this, too, might be imparted and acquired naturally, as one learns of the beasts by observing them. Is that a wholly impossible ideal?

One of the most effective means of teaching facts and inculcating principles is by stories. Three generations of little ones have sat by me and drank in my stories with an avidity that has never been satisfied. With all, the one tale most absorbing has been that of the development of man—evolution. The boy and girl who were lost in the woods, how they built shelters in the trees and hollow stumps, later digging caves; used clubs, then spears; the enormous step taken when the string was discovered, and the spear was fitted to a bow and became an arrow; the capture and taming of the dog and the other domesticated animals; the progress of the search for food, from berries, roots, and fungi to flesh, then to grains, and to cultivation; the discovery and

utilization of metals, and all the rest. Whatever else might be told the children, they always demanded this tale, which never ended, as the experiences multiplied and extended. Primitive isolation, the development of the family and later the clan, imparted the lessons of interdependence and altruism as no precept could possibly have done. The results of a selfish appropriation of good things, and of self-preservation at the sacrifice of others, were easy to depict in a way to render such faults vividly appreciated.

Boys love to work. Their play is usually work. Give them a chance to use tools, show them how to use them properly, and they will be satisfied. Lazy! The trouble is to keep them in work. Each should do a fair share of the community work, and have enough of his own to do also—work for which he makes a profit—gardening, mechanic, tending animals or chickens, something from which he may draw his spending money. With the ideal bathing and the sport offered by this place, there should be no dearth of amusements for boys and girls.

Girls are naturally amiable and helpful. Here is a little six-year-old who calls to me to wait, as I start for my office. She runs up to me and extends a grimy paw in which is a bit of sticky taffy! Do I take it? Sure! dirt and all; and solemnly devour it. Do you think I would deprive that little loving heart of the pleasure she takes in seeing me eat her candy? Her eyes dance with delight as she sees me munch it.

Girls do not need development as much as they need the removal of the difficulties that hinder their development. Every girl is innately a little mother and needs most of all to be let alone.

"The Pines" is a model of sanitation, and the lessons of hygiene may be taught by its operation. Here is an example—there is some rhus tox., i. e., poison-ivy, growing there. I should tell the children about it, and of its uses as a medicine, and then have them gather it, make it up into marketable shape and sell it, dividing the proceeds among the workers pro rata. There would not be a trace of rhus left on that tract. Another—a man who raises chickens is troubled by a weasel. I should offer a reward for its capture; or, if it were a mink, the ownership of the skin.

Oh, well; it's only a dream. But, if—

How I Jugulate Pneumonia

By J. E. TIBBENS, M. D., Beech Creek, Pennsylvania

EDITORIAL NOTE.—Many readers of CLINICAL MEDICINE *will be startled by Dr. Tibbens' description of a method for abruptly cutting short the course of pneumonia; many will doubt its general efficiency; but any plan that promises a high percentage of cures is worth thinking about. It should stimulate thought and discussion—and this we earnestly invite.*

THIS is the way I cut short pneumonia. When I am called to attend a case of pneumonia, which usually is after the initial chill, I give a dose of calomel, followed in four hours by a laxative saline. I then order a kaolin paste applied to the affected side as hot as can be borne by the patient, covered with cotton an inch thick, and a binder to hold it in position. This I order to be repeated every twenty-four hours. I also direct two large rubber water-bottles filled with hot water, one to be applied to the affected side and one to the feet; the water to be renewed as often as is necessary to keep up continued heat, day and night, until the temperature drops to 100° F.

The Medication Employed

For medicine, I prepare the following solution: I drop sixty-four 1-800 grain standard granules of crystalline aconitine into a bottle, add thirty-two teaspoonfuls of water, and direct a teaspoonful of this to be given every hour for five doses, then every two hours while the patient is awake. This I continue until the temperature drops to 100 degrees. At 10 o'clock in the evening 5 grains of Dover's powder is given, and at 11 p. m. 5 grains more, unless the patient is asleep. This will usually give the patient a tranquil night. When an expectorant is indicated, the carbonate of ammonium is my favorite.

Under this treatment, the temperature will begin to fall at the end of twenty-four hours, the skin will show signs of moisture, and the flush on the cheeks will begin to fade. At the end of forty-eight hours or thereabout, the patient is perspiring and the temperature drops several degrees, while the pulse falls

ten or fifteen beats. Near the seventy-two hours' period of the treatment the patient perspires freely, sometimes profusely, his clothing and sometimes the sheet on which he lies becoming saturated. The thermometer records 100° or perhaps 99° F., and the pulse has dropped to normal or nearly so. I now know that I have conquered the disease. The patient will feel somewhat prostrated for a day or two, but then will start on the road toward convalescence.

Results Not the Same in Alcoholic or Debilitated Subjects

Of course, I should not think of jugulating a pneumonia in three days in an old alcoholic or in a patient whose constitution has been weakened by a chronic disease preying upon it for some time, such as diabetes or Bright's disease; but even here much good can be effected by this method of treatment. I have been surprised how well persons with valvular disease of the heart bear this treatment.

From my experience in the treatment of pneumonia, I can say with confidence that, if a physician wants to scatter a colony of pneumococci before much mischief is done to the lungs, he will use the aconitine (crystalline) as designated above. A physician who uses aconitine (crystalline) should recognize that he is handling the most powerful alkaloid in the materia medica, a power for good in the hands of a careful physician, but also a power for evil in the hands of one who is careless.

I always instruct the nurse to use the same teaspoon that I used in preparing the liquid. This I do to assure accurate dosage.

When Aconitine Is Dangerous

Hare says that crystalline aconitine should not be given internally, and I agree with him just to this extent, that a "dabster" should not prescribe it to be given internally. Any physician who prescribes it will find it perfectly safe if he exercises due care in its administration; and, further, he will find it the best and most certain antipyretic that he has ever used.

I carry these "little giants" in my case continually and should not like to practise medicine without them. I use them not alone in pneumonia, but in every disease that ends in "itis" where the temperature runs high, except in asthenic cases.

In typhoid fever I always prescribe aconitine in conjunction with the sulphocarbolates for about two weeks, and in many instances I have had the pleasure to see the temperature normal in that time, and in some cases even several days sooner.

If any physician is skeptical about this treatment in pneumonia or has doubts of the proper diagnosis made where such favorable results were shown, let him treat his patient on the expectant plan, as he was taught at college, until the lung or lungs have become hepatized and such other symptoms occur that he is "dead sure" of his diagnosis, and then resort to the treatment as outlined in this paper, and even then he will meet with a pleasant surprise.

A Case Is Cited

Note the following case treated recently by this method: A clay-miner, 35 years old, strong and of athletic build, in weight hovering around the 200-pound mark, had a severe cold for a week, but worked in the mine until he felt faint. In about four hours after quitting work he had a decided chill. This was on Friday, September 13, 1912.

The next day his wife sent to my office for medicine, stating that her husband had a terrible cold; that she insisted upon having me see him but to which he would not consent. The next day, Sunday, at 10 a. m., I was called to see him. I found him a very sick man. He was delirious, had a temperature of 104° F., and pulse ran 126. Auscultation and percussion indicated an undoubted well-developed pneumonia of the right lung. The temperature and pulse record up to Friday was as follows:

	Temperature		Pulse
	A. M.	P. M.	
Monday	101.6	102.6	120
Tuesday	100.4	102.0	118
Wednesday	99.6	101.8	116
Thursday	99.0	101.4	100
Friday	normal		96

The aconitine was given regularly until Friday morning, when I ordered it stopped, with the instruction to give him a few doses if the fever should rise toward evening; which was the case, and three doses were given. This big fellow perspired so profusely on Wednesday and Thursday that he saturated all the clothing that came in contact with his body, and even the mattress on which he lay. He was delirious until Friday, stating later that his sickness was a blank to him from Sunday morning until Friday morning. On the ninth day of the treatment he sat up in bed and relished a bowl of soup.

Before I read Clinical Medicine, such cases as this one gave me great anxiety about the ninth and tenth day of the illness, not

being certain in many instances that the patient would live twenty-four hours longer.

Any physician who will use the treatment as outlined in this paper will, on the third or fourth day, see his patient sweat as he never saw one sweat before. Great drops will ooze from his forehead and stream down over his face. All the clothing that comes in contact with his person will be saturated and sometimes even the mattress on which he lies. Is it not rational to conclude that a pneumonia must yield quickly to a method of treatment that will produce such profuse sweating?

Come, join me in this method of treating pneumonia, and we shall abort 95 percent of all our sthenic cases and save more than ten thousand persons from death each year in this country alone.

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[That the method of treatment outlined by our correspondent is effective seems to be proven by the results secured; and, after all, it is results we are after.

That pneumonia *can* be aborted has been pretty well proven, but it is, of course, essential that treatment be instituted early, and primary defervescence be secured. The desirability of maintaining continued heat, day and night, is open to question; however' in some cases the application of hot-water-bottles to the affected side of the chest and feet of the pneumonic patient would materially increase temperature; at least that has been our experience.

We should hesitate also to give to any but the most robust, full-blooded patient 1-400 grain of crystalline aconitine every hour for five doses, then every two hours while the patient is awake, until the temperature falls to 100° F. We believe better results can always be secured by the use of smaller doses of aconitine, veratrine and digitalin, as in the defervescent formula. This will give equally good results and, intelligently used, is free from danger.

Before applying kaolin paste, or even an ordinary pneumonia-jacket, we have found it advantageous to rub in one-half to one dram of guaiacol.

Diaphoresis is desired, but it is necessary to be very careful; often the perspiration is so excessive that the patient saturates clothing and bedding. The depression in such cases is liable to be profound, and, unless a competent nurse is in attendance, the results might be serious.—Ed.]

The Treatment of Bronchitis

Methods That Bring Success in Troublesome Cases

By W. C. WOLVERTON, M. D., Badger, Iowa

IN considering the treatment of bronchitis, four distinct forms of the disease are to be recognized, as follows: (1) acute bronchitis; (2) chronic bronchitis; (3) fetid bronchitis; (4) fibrinous or plastic bronchitis. "Capillary bronchitis" is no longer recognized as such, but as bronchopneumonia, and accordingly it will not be considered at this time.

Acute Bronchitis

The treatment of this exceedingly common affection is usually a rather simple matter. However, one must be constantly on his guard, making a thorough daily physical examination of the thorax, lest the bronchitic process insidiously merge into a pneumonia. Usually, the time-honored hot foot-bath, hot lemonade (or hot "ginger-tea"), a full dose of Dover's powder, and calomel and soda, 3 to 5 grains of each at bedtime, with an effervescent saline laxative in the morning, will be all the treatment necessary.

In place of the Dover's powder, the writer much prefers the spirit of nitrous ether ("sweet spirit of niter") for its diaphoretic and diuretic effects. This latter excellent remedy is almost invariably given in insufficient dosage; 1 to 2 drams is the proper dose for an adult—children in proportion to age.

It should go without saying that the sick-room should be properly ventilated, with an abundance of fresh air and an even temperature of about 70° F.; yet these simple measures are too often neglected. A slight excess of moisture in the room is gratifying to the patient, relieving the dyspnea; to secure this keep the teakettle steaming. It is well to put a few drops of eucalyptus oil into the boiling water occasionally in order to keep the air charged with its vapor.

Special Measures for Children

Infants and young children should be clad rather more warmly than ordinarily. Apply

a cotton-jacket; but warn the mother against too sudden removal of the cotton lining, which must come out gradually, a little being picked out each day after convalescence is established. Two or three times daily, the chest should be anointed with hot camphorated oil, to which has been added from one to three percent of liquid guaiacol.

A croup-kettle should be employed for ten to fifteen minutes every hour or two hours; to a pint of the boiling water add compound tincture of benzoin, 1 dram, and eucalyptus oil and liquid guaiacol, of each 10 drops. A "bronchitis tent" may be improvised by covering the child's bed or cab with a blanket, and conducting the medicated steam under the "tent" by means of a rubber tube attached to the spout of the croup-kettle. This may be used while the child sleeps.

In the early stage of an acute bronchitis, especially in children, it is necessary to reestablish circulatory equilibrium quickly and relieve vasomotor spasm. This is best accomplished by the employment of aconitine and veratrine. In children, if there be any tendency to asthenia, strychnine, or preferably brucine, may advantageously be added to the defervescent remedies. Atropine is indicated when there is bronchial spasm, when there is bronchorrhea, and when there is need of a respiratory stimulant. Sanguinarine nitrate is indicated when there is excessive secretion, but where the tendency to expectorate is absent.

After secretion of mucus has begun, and defervescence has occurred, ammonium chloride, in doses of 1-4 to 1 grain, acts well in causing a return to normal secretion; in the presence of asthenia, it may well be given in combination with ammonium carbonate, or be replaced by the latter. The unpleasant taste of these useful drugs is best masked by dissolving them in bitter almond water, to which is added fluid extract of licorice, 1-2 dram of the latter to each ounce of the former. Ammonium hypophosphite, in the case of children, is quite as efficient as the chloride; it does not disturb digestion, and is readily taken.

Excessive Bronchial Secretion

Codeine is the best sedative; but one must be very careful in employing this or any other narcotic in children. More often a stimulating expectorant, such as sanguinarine, is necessary, since there is a tendency for the bronchial tubules to become filled with secretion, especially while the child is sleeping; and many a little one has died from this cause.

The mother or nurse must be warned against allowing the child to sleep for any considerable length of time; she must change its position every fifteen or twenty minutes, and take it up often. In case the child does not cough enough to keep the tubules clear, and cyanosis supervenes, emesis must be provoked by the administration of syrup of ipecac, or by a hypodermic dose of apomorphine when quick action is imperative. When vomiting occurs, have the child partly inverted, or at least have the head low so as to allow the secretion to "drain out." It is remarkable to what an extent the lungs may become "waterlogged." Many an infant has drowned in its own secretion.

In older children and adults, the application of a mustard-plaster to the chest certainly gives considerable relief and hastens cure. The writer most emphatically disapproves of the use of kaolin pastes or other "osmotic muds" in infants. The poor little one has all it can do to get breath enough at best; if you then plaster its chest with mud, which soon dries and becomes cast-like, you are only adding to its discomfort. Figure for yourself how many footpounds of energy a baby has to use in a day's time in lifting a mass of sodden mud with every breath. A cotton-lined jacket, on the other hand, gives comfort to the child.

Acute Bronchitis in the Aged

In the aged, it is important to sustain the general strength and especially to watch the right heart. *Treat the patient, not the disease.* Stimulants are usually necessary. Strychnine is indicated, but it is not to be abused. It is *very* important to have the aged patient's position changed at frequent intervals in order to facilitate expectoration, to avoid atelectasis, hypostatic congestion, and pneumonia. These things sound old, and they *are* old and we all know them; but too often we do not sufficiently impress their importance upon those having the care of these patients, and with disastrous consequences.

In adults, during the "dry stage," apomorphine hydrochloride, in acidulous solution, is the very best expectorant; dissolve 1 grain of the drug in 4 ounces of distilled water acidulated with a few drops of hydrochloric acid; of this solution, give one dram every hour or two hours. This gives a dose of 1-30 grain. Tartar emetic is also a valuable relaxing expectorant in *sthenic* cases.

"Linseed tea" is a time-tried but neglected remedy. To make it, take whole flaxseed, 3 drams; ext. licorice, 1-2 dram, and boiling

water, ozs. 10. Mix and allow to stand in a warm place one to four hours. Strain, and add a little lemon-juice and sugar, and acacia, 1 to 2 drams. If the cough is troublesome, camphorated tincture of opium, in suitable dose, may be added.

In the late stages of acute bronchitis, in adults and the aged, eucalyptus oil, drops 1 to 5, and santal oil, drops 5 to 10, in capsule, are stimulating expectorants of proven worth.

Chronic Bronchitis

Removal of the exciting cause is a measure of the first importance (inhalation of dust, smoke, irritating gases, sudden changes of temperature and weather, and the like), but too often this is impossible. Removal to an equable climate is often sufficient in itself to bring about a cure. The wearing of woolen underclothing, cold bathing on arising, the correction of nasal stenoses, the removal of adenoids and hypertrophied tonsils, and the correction of other existing abnormalities of the upper respiratory tract are all important prophlyactic measures, in that they lessen the liability to exacerbations. In many instances there are concomitant or underlying conditions which must be treated, such as, for instance, an old cardiac lesion, a gouty or rheumatic diathesis, and tuberculous trouble.

The "building-up" of the patient is usually very necessary, and for this purpose strychnine, either alone or combined with iron, quinine and arsenic (as in the "triple arsenates," with or without nuclein), is indicated, especially in the aged. In children, the syrup of iron iodide (or granules of arsenic iodide or iron iodide) is commonly indicated. At both extremes of life, codliver oil will be found efficient.

When to Use Ammonium Preparations

Among expectorant remedies, the ammonium preparations occupy a leading place. The chloride is indicated when the sputum is scanty and viscid; the carbonate when the right heart is laboring; and the aromatic spirit is preferable when there is indigestion, and especially when flatulent distention exists, this latter being a common and troublesome symptom in these cases. Ammonium hypophosphite is the preparation of choice for children.

Potassium iodide is valuable for liquefying the sputum, while its sorbefacient and alterative properties may diminish the hyperplasia in the bronchial walls. In gouty and luetic patients it is of particular benefit. Patients who cannot tolerate potassium iodide do well on syrup or glycerole of hydriodic acid; this is also a palatable vehicle for other indicated remedies. A very serviceable expectorant combination consists of ammonium chloride, potassium iodide and tartar emetic, in bitter almond water, to which has been added a little fluid extract of licorice.

Ichthyol has given proof of curative virtue in chronic bronchitis. It is given in daily dosage of 1-2 dram, administered in gluten capsules, to provide against its being set free in the stomach. Some patients can take this drug dissolved in peppermint water; but it causes nausea in most cases when administered in this way.

Volatile Oils, Tars, Oleoresins and Antiseptics

The compound tincture of benzoin, oils of gaultheria and eucalyptus, and oleoresins of cubeb and copaiba, are neglected remedies which give excellent results when administered on a Yeo respirator, in a croup-kettle, or in a nebulizer; or they may be taken internally, in capsule. Two drawbacks to the use of this class of remedies is that they are prone to cause gastrointestinal irritation, and that they must be given very cautiously, if at all, in the presence of renal lesions.

The carbonates of creosote and guaiacol are valuable as disinfecting expectorants; they are of especial benefit when there is an underlying tuberculous trouble. Benzoic acid, grs. 10, t. i. d., is a good disinfecting expectorant. Terpine hydrate and terebene are useful stimulating and disinfecting expectorants.

Apomorphine, gr. 1-32 every two to four hours, in acidulous solution, thins tenacious secretion. Sanguinarine stimulates expectoration when cough is ineffectual. Menthol, by inhalation, relieves violent attacks of coughing. Terpine hydrate, copaiba (or eucalyptus oil), and codeine, given together in capsule, form a very serviceable combination in many cases. Atropine is the indicated remedy in bronchorrhea. Aspidospermine for dyspnea from whatever cause, is a remedy that should never be forgotten.

Fetid or Putrid Bronchitis

This form of bronchitis is only differentiated from the others by the odor of the sputum. In many cases the odor is due to retention of secretion in bronchiectatic cavities. The treatment is essentially the same as that of chronic bronchitis, especially as regards supportive and reconstructive treatment. The syrup of iron iodide and codliver oil are very serviceable remedies for this purpose.

Naturally, strychnine is indicated. The balsams and oils (copaiba, cubebs, sandalwood, gaultheria, eucalyptus, etc.) are very useful, as are also terpine hydrate and terebene. Opiates are to be avoided.

Sodium thiosulphate (hyposulphite) also promptly changes the character of the expectorated material, and thus eliminates the fetor. Naphthalin is an excellent remedy. The dose is 8 grains, to be repeated every three hours, as needed.

Phosphorus, gr. 1-100, for lucopurulent sputum, is a neglected and highly useful remedy. Steam inhalations, charged with the vapors of the balsams and oils, as given under acute and chronic bronchitis, are of special value in fetid bronchitis. Creosote, guaiacol and iodoform all have a place in the treatment of this disease.

Fibrinous or Plastic Bronchitis

This is a rare form of bronchitis, the treatment of which is extremely unsatisfactory. Very few cases have been treated by any one observer, so the results from any particular line of treatment are problematical. Treatment does not differ essentially from that of other forms of bronchitis, except that the iodide and carbonate of potassium, and alkaline steam sprays and inhalations are of more decided value. The potassium iodide stimulates secretion, and thus assists in eliminating the bronchial casts. It must be given in large doses, and over a long period of time, to lessen the tendency to recurrences.

Apomorphine, during the attacks, is useful for the same purpose as the potassium iodide. Creosote is recommended for use during attacks and in the intervals.

Bacterin (Vaccine) Therapy in Bronchitis

In all forms of bronchitis, pathogenic bacteria of various sorts are constantly found in the bronchial tubes in great abundance; and it is reasonable to believe that they play an active part in the etiology of the disease. The bacteria are about as follows:

1. Acute: Streptococcus, pneumococcus, and the bacillus of influenza.
2. Chronic: Streptococcus, pneumococcus, staphylococcus aureus and albus, pneumobacillus of Friedlander, micrococcus catarrhalis, and tubercle bacillus.
3. Fetid: Streptococcus, staphylococcus aureus, pneumococcus, bacillus pyocyaneus, colon bacillus (?), and several unidentified species.
4. Fibrinous: Streptococcus, staphylococcus aureus, and the ubiquitous pneumococcus.

The administration of mixed, polyvalent stock bacterins (bacterial vaccines) containing the appropriate microorganisms, as above enumerated, assuredly is a rational measure, theoretically; and it has proved of wonderful value, practically, in these conditions. I do not advocate the use of bacterins to the exclusion of time-tried remedies of proven virtue; they are to be used merely as a very efficacious adjuvant treatment, serving to rally the patient's powers of resistance against the hordes of invading germs. When we have accomplished this much, by the judicious use of bacterin therapy, we have put the diseased tissues in the best possible condition to favor the action of our more time-tried drugs. The physician who is not using the bacterins in this way is passing by a very keen therapeutic weapon.

THE history of medicine is a history of sacrifice for the good of man. The physician encounters more hopeless misery and unutterable woe than all other trades and professions combined. You will find him everywhere; now among his star patients, who really pay him what they owe; now doing a thankless job of surgery in some public hospital, or bending over the form of some lone woman dying in a garret; but through the gloom and sorrow, in the path of pain and the way of death, his urbanity is never lost and his patience, like the celestial virtue, endureth forever. He may not be a saint. Oftener than otherwise he professes no creed; but when he enters the sickroom one may almost hear the sad, sweet words, grown mellow in the echoes of two thousand years: "In the world ye shall have tribulation, but be of good cheer; I have overcome the world."

—St. Louis Republic.

THERAPEUTIC NOTES

SPARTEINE AFTER OPERATION

The administration of sparteine after operation insures a more uniform and efficient circulation, especially a better capillary circulation, and this tends to promote primary union.

STROPHANTHIN INTRAVENOUSLY

Eggleston says (*Jour. Am. Med. Ass'n*) that when strophanthin is injected intravenously it induces its effects promptly, and that these disappear invariably within twenty-four to thirty-six hours.

CHOLERA VACCINE

In France the physicians are trying out a method of inoculation with living microbes to secure immunity against cholera. It is reported that ten days after inoculation three subjects thus treated ingested living cholera bacilli without trouble following.

PITUITRIN IN PARTURITION

Pituitrin, extracted from the hypophysis, was administered by Hoffbauer to women in parturition. The pains were increased and the intervals shortened, especially in the second period and during expulsion. How the experimenter knew how strong the pains would have been without the remedy is not stated.

THE ADVANTAGES OF TORIC LENSES

Dr. Joe T. Mitchell, of Richland Center, Wisconsin, is very strongly in favor of toric lenses, claiming that they are the best for presbyopia and hyperopia. The advantages of toric lenses lie in the fact that they conform to the curve of the eye, that they have a greater range of vision, and that they are susceptible of taking a very clear, high polish. Other things being equal, that is, having the lenses properly ground, the frame fitted and all details observed, the toric lenses are far superior to the original, either rimless or rimmed ones. We are informed by our friends who are using toric lenses that Dr. Mitchell is perfectly right in his contention that the toric lenses are far superior for many reasons. We are glad to mention this fact although this innovation in the products of the optician's art is no longer new.

EFFECT OF CAFFEINE ON BLOOD PRESSURE

In a report on his investigations on the effect of caffeine upon the circulation, Salant says (*Jour. Pharm. & Exper. Therap.*, Mar., 1912) that the intravenous injection of 15 to 25 milligrams of caffeine per kilogram-weight in animals was followed by a transitory fall of blood pressure. A moderate rise of blood pressure was rarely observed, while occasionally the blood pressure remained unchanged.

STERILIZATION OF DRINKING-WATER

Hypochlorite of lime has been utilized in Baltimore for destroying the germs in the drinking water. According to Stokes and Hachtel (*Jour. Am. Med. Ass'n*), one part of the lime salt in one million parts of water proved effective. The bacteria were reduced markedly, especially the colon-bacilli and others of intestinal origin. Other spore-bearing organisms increase after this treatment, probably because of the destruction of their antagonists. Typhoid fever lessened in prevalence in the city after this chlorinization of the water supply.

DURATION OF DIGITALIS ACTION

Eggleston (*Jour. Am. Med. Ass'n*, Oct. 12, 1912) finds that the effects of digitalis, as indicated by the coupled-beat phenomenon, endured from eight to twelve days; the dose required to develop this effect being 2.25 Grams of the leaf. Elimination of the drug was slow, and during this period the toxic action could quickly be restored by smaller doses. In one instance a dose of more than 10 Grams was given; but that must have been

exceedingly poor digitalis. The report is obscure from its very exactitude, and yet was based on an unknown quality of the crude leaves of unknown age.

In the discussion, David Marvin told of giving tincture of digitalis in doses of from 10 to 20 minims. No effects had been manifested after two hours; at an unnamed later period, however, the action was manifested, the rise in blood pressure reaching its height in twenty-four hours and sinking to normal in fifty hours.

SALVARSAN IN MALARIA

Lieutenant Goldthwaite, U. S. A. Medical Corps, reports (*The Military Surgeon*, Oct., 1912) a case of malaria (estivoautumnal parasites) with hematuria, recurring despite the administration of 2 Grams of quinine daily for twenty-two days. "The patient was so anemic that pressure on the limbs caused no appreciable change of color and the whole body was shrunken and of a gray-yellow color. He was too weak to raise his head." One injection of salvarsan effected a cure—this being followed by even larger doses of quinine.

ON THE ACTION OF GELATIN

After the administration of gelatin as a hemostatic Dr. Vladimir Michl noted in a number of cases in which the patients had been greatly debilitated that a few days after commencing the administration of gelatin the general condition of the patients showed a surprising improvement. The high temperature fell to normal, the secretions from the granulating wounds became less, the granulations thus became firmer, more resistant, and the patients, who in many cases had been considered as lost, approached recovery.

Dr. Michl says in a communication to the *Wiener Medizinische Wochenschrift* for June 22 that he was in this manner lead to employ gelatin deliberately in various suppurating processes and that he now orders it regularly in all septic and septicopyemic diseases, especially in thrombophlebitic processes, and he has seen such remarkable results that he requests the more general administration of gelatin for the purpose of deciding whether his observations are based upon an actual beneficial effect to be derived from this substance.

Ten Grams of gelatin are dissolved in 100 to 120 Grams of water boiled for one or two minutes and mixed with a small amount of sugar and lemon juice. This amount is a daily dose which may be taken either at once or in the course of a few hours, cold or lukewarm.

Dr. Michl usually orders, in addition to the gelatin, hourly doses of a one- to two-percent solution of collargol (one tablespoonful). He says that this mode of administration, which is very simple, is usually effective and that he has rarely injected the gelatin solution subcutaneously or into the rectum. He further orders the administration of gelatin one or two days before operation in cases where there is a suspicion of hemophilia or in operations which are sometimes attended by profuse hemorrhage. He suggests that it might well be given in such cases where there is cause to fear severe wound infection.

If it should be shown that gelatin has the power in some manner of strengthening the tissues, as is indicated by Dr. Michl, it would certainly form an extremely simple prophylactic and curative remedy which is not only taken easily but has in addition the advantage of a nutritive action.

Gelatin has long been used as a nutrient especially in febrile cases because it saves albumen and the patients bear the strain of fever more easily and become less debilitated when they receive generous doses of gelatin. It would be interesting to act upon this suggestion of Dr. Michl's and to report results.

WHOOPING-COUGH

Concerning the use of the serum of Bordet-Geng, Duthoit contributes (to *Ann. des Méd. et Chir. Infant.*, Sept. 15, 1912) some statistics on 72 cases observed, from which he deduces four rules, viz.: (1) Only inject children who cough characteristically in the doctor's presence; (2) count the coughs daily, and take notes for several days before the injection; (3) give no internal medicine; but hydrotherapy may be employed; (4) make the injection systemically, whatever the period of the affection.

The 72 patients were divided into several groups and treated as follows: Series *a:* 21 received one injection of 10 Cc. of the serum, without regard to their age. Series *b:* 15 received one such dose, the patients being under 2 years of age. Series *c:* 5, of varying ages, received 20 Cc. once daily. Series *d:* 6 received many injections of 10 Cc., more than eight days apart. Series *e:* 5 received many injections of 10 Cc., less than eight

days apart. Series *f:* 2 received many injections of 20 Cc. each, more than eight days apart. Series *g:* 2 received many injections, the first of 20 Cc., the others of 10 Cc. each.

Results were as follows: (*a*) Improved, 16; unchanged, 5; injected during the first week of coughs, 20; after the second week, 1. (*b*) Improved, 8; unimproved, 3; injected during the first week, 11. (*c*) Improved, 2; unimproved, 3; injected during the first week, 2. (*d*) Improved, none; seric accidents, 4. (*e*) Improved, 1; no seric accidents; (*f*) Improved, 1; no seric erythema. (*g*) Improved, 1; no seric erythema.

Duthoit holds the number of cases too small to justify conclusions, but proffers these suggestions: (1) The serum is harmless, even in large doses. (2) The dose should not be regulated by the child's age. (3) The effects of the serum are quickly exhausted, rendering single injections insufficient, even if administered at the onset. (4) Large doses (30 Cc.) are necessary even for very young children, repeated regularly according to the sedation of the paroxysms. (5) The injections should be repeated only every four or five days at the maximum, to avoid seric accidents. (6) The action of the serum seems to diminish as it becomes older.

There is little in this report to induce one familiar with the control exerted over pertussis by hyoscyamine and calx sulphurata to abandon these remedies for the serum.

TREATMENT OF DISEASES OF THE TONGUE

In treating maladies of the tongue, Lutembacher (*Le Monde Méd.*) begins by removing every cause of local irritation, then forbids all irritants, among which he names tobacco, alcohol, spiced foods, sugar, and this the more when the patient is syphilitic. The mouth should be washed frequently with alkaline and antiseptic lotions. The general health must be regulated, especially the digestive system, which often is the basis of lingual manifestations.

Inflammations and painful states demand local emollients, mucilages, alkalis, weak astringents, tea, tannin or alum. Bathing the mouth with soda solutions gives good results. Ulcers should be touched with chromic acid or methylene-blue. Very acute pains call for collutories of cocaine. For ptyalism, atropine in small doses. Dryness of the tongue is relieved by applying fluid petrolatum. Avoid strong topicals for keratosis, but apply an unguent of balsam of Peru, 1 part, and petrolatum, 50 parts, mixed with equal parts of lime water and glycerin. One should also try 10-percent alcoholic solutions of salicylic acid. Syphilis demands its own treatment.

This treatment is not very satisfactory. The warning that many maladies of the tongue depend upon causes within the alimentary canal is well founded. But the local treatment by lotion is not as effective as that by means of lozenges allowed to dissolve in the mouth. The most generally useful agents are the sulphocarbolates of sodium, calcium, and zinc. Of either, a 5-grain tablet held thus in the mouth is most effective.

The pain of mouth ulcers is relieved by applying crystals—not powder—of iodoform. Healing is promoted by nuclein locally. Spreading or sluggish ulcers require the lactic-acid tablets crushed and applied dry. Infiltrations are dissipated by using calx iodata, while the indication for an astringent is is admirably fulfilled by chewing rhubarb or hydrastis root.

Put these suggestions into practice and the feebleness of the French therapeutics will soon be demonstrated.

INTESTINAL ANTISEPSIS

N. M. Harris contributes to *The Journal of the American Medical Association* for October 12 last an exhausting study of the literature of intestinal antisepsis as represented by the laboratory investigators, carefully excluding the clinicians. The paper was prepared at the instigation of the Council on Chemistry and Pharmacy, whose existence some readers possibly may recollect. To the gathered data Dr. Harris adds the records of a few experiments of his own. The technic is pronounced untrustworthy, the antiseptics tried are those that have failed to win favor with clinicians, no definite or positive conclusions are reached, and the entire value of the article is *nil.*

NEO-SALVARSAN: A NEW PREPARATION OF SALVARSAN

A few months ago Dr. Ehrlich succeeded in producing a modification of the 4-dioxy-3-diamidoarsenobenzol, known under the trade-name of salvarsan, which does not present such difficulties in the technic of preparation for administration as the original "606," in that the "new" salvarsan (neo-salvarsan) is soluble in water, has a neutral reaction, is less toxic and more effective.

Dr. Schreiber, who was one of the first to test the original Ehrlich-Hata remedy, reported to the Magdeburg Medical Society, on March 28, upon the new preparation. He has used it since last October in 300 patients, to whom a total of 1200 injections were given, and obtained very satisfactory results. Owing to the neutral reaction of neo-salvarsan, the socalled alkali effects of the old salvarsan, that is, the undesirable by-effects which occur rather frequently, are no longer observed. As neo-salvarsan is less toxic than the original preparation, it can be given in a larger amount, the therapeutic dose being one-third larger than that of salvarsan.

In spite of all opposition, the greater part of which shows a deplorable ignorance of actual facts concerning the syphilis therapy with salvarsan, or else shows a deplorable chauvinism—that is, a national objection to a remedy advanced by a German scientist —it can not be denied that within certain limits salvarsan has made good. The present writer has had the opportunity of watching the work of one of the greatest users of the remedy in this country, and is convinced that within the limits mentioned salvarsan is one of the most potent means for treating lues venerea that we possess. However, among the limitations to be insisted upon, he would put, first of all, that the remedy should be administered only by men who are competent to do so, that is, by experienced syphilographers.

It is no longer claimed that salvarsan will produce a *sterilisatio magna*, nor was such a claim ever made definitely. Professor Ehrlich had expressed the hope that he had found his ideal remedy which might exert such an action; and in some spirillosis diseases, although not in syphilis, this effect was actually accomplished. But we have long since found that such a result could not be expected from a single dose or even from two or three doses of the arsenobenzol.

Nevertheless, the clinical results of men capable of treating syphilis, and careful enough to persist in this tedious and discouraging work, show conclusively that salvarsan is not only the equal of mercury and iodine as a means of treating syphilis, but is in many respects superior. It has been shown that with proper administration of this agent the same results can be obtained in the course of weeks, when with mercury and iodine months and years are required.

For some time the treatment with salvarsan and mercury combined has been advocated by some of the foremost syphilographers, and this mode has, emphatically, given excellent results. If we review the literature of the subject, we cannot close our eyes to the fact that under the stimulus of Ehrlich's investigations and accomplishments the therapy of lues venerea has advanced immensely in the course of the last two years.

AUTOGENOUS VACCINES IN TUBERCULOSIS WITH MIXED INFECTION

Dr. Thomas J. Beasley (*The Indianapolis Medical Journal*, Feb., 1912) estimates that at least 75 percent of all persons having pulmonary tuberculosis show mixed infection and that in those treated with autogenous vaccines relapses occur less frequently than in those of this class not so treated.

Mixed infection often is responsible for the chronicity of the disease, the organism being able to develop only a sufficient degree of resistance to hold the process in abeyance, but not enough to exert a curative action; and it is this class of cases in which autogenous vaccines are particularly indicated. Further, in cases of the acute type, with extreme toxemia and lowered resistance, the careful and prolonged use of autogenous vaccines offers hope for a degree of improvement that used to be considered impossible.

The author insists upon the necessity of small doses, so as to avoid all reaction. The dose must, of course, be determined individually, because, in spite of standardization, the virulence of the bacteria and the resistance of the patient cannot be known, while standardization as to the number of bacteria present in the sputum is not a sufficient guide for proper dosage.

After the symptoms due to mixed infection have been removed by the use of autogenous vaccines, the patients will respond far more promptly and efficiently to tuberculin; and at this point the purely tuberculous process must be treated, in order to complete the cure. "In autogenous vaccines we have a means of reducing the fever and rendering patients suitable for tuberculin that far surpass any other agents at our disposal."

The administration of autogenous vaccines should not be discontinued abruptly, but gradually, repeating half the maximum dose once each three weeks for a period of several months. This plan seems to prevent relapses. If tuberculin is being administered after a course of vaccine has been given, it is necessary to omit a few injections at the intervals when the triweekly dose of autogenous vaccine is to be given.

GLEANINGS from FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M. D.

Boldine in Mucomembranous Enterocolitis

ON the first day of the month of June of last year I was called to see a little girl twelve years of age. She complained of severe headache. She had fever, no appetite, and felt nausea. The tongue was lightly coated and red on the point and edges. The stomach was very sensitive on pressure. The liver was a little enlarged, passing the border of the false ribs, yet not painful to the touch, and neither was the abdomen. I asked whether the child had its regular stools and the parents answered that she was constipated for some time.

These symptoms made me think the child was troubled with some gastric fever. I prescribed a free purge of 30 Grams (1 ounce) of castor oil. I also ordered giving milk mixed with Vals mineral water (magnesium bicarbonate). I asked the parents to take the temperature, exactly, per rectum, at 7 o'clock every morning and evening.

On the third of June I learned that the purge had sufficient effect, although part of the oil came away with the discharge. The feces had a somewhat stronger odor than usual but did not present anything unusual. The thermometer marked, the evening before at 7, 40.3° C. (104.4° F.), and at 7 in the morning, 40.1° C. (104.2° F.). The pit of the stomach was very sensitive, and the headache persisted. I ordered the milk continued, and for calming the headache I ordered 0.75 Gram (12 grains) of aspirin, dissolved in half a tumbler of water given by the rectum at 9 p. m., after a small evacuant enema. Lastly I recommended to give next morning an intestinal enema of a liter of marshmallow-root infusion, and to keep the evacuation for my inspection at the next visit.

Next morning I found the child quite dejected and having much fever. The temperature last night was 40.4° C. (104.7° F.) and this morning 40.2°C. (104.4° F.). The aspirin, which made the young child to perspire well, calmed the fever till 2 a. m., but then it began again with its preceding violence. I asked to see the evacuation passed after the enema, and I noticed an enormous quantity of glairy matter resembling the raw white of egg with the feces.

I had, therefore, before me, not a gastric trouble, properly speaking, but a clear case of acute mucous enterocolitis. There was certainly a gastric trouble, but the enteritis was the main consideration. The liver descended still lower than the first day. The spleen, too, was slightly tumefied and the abdomen became sensitive to pressure, but the pain caused by it was quite bearable. I prescribed 1-milligram granules of boldine, one every two hours, five during the day. In addition I ordered vegetable bouillon, the milk as before, and to give special attention to the morning colonic enema, and the last thing in the evening an enema of a quart of water containing 0.75 Gram of aspirin, for as long as the fever kept high.

On the 5th of June conditions were the same. The fever continued, the temperature in the evening running as high as 40.2° C., and in the morning to 40° C. The stools contained great quantities of glairy, ropy mucus, largely membranous matter resembling in a way large vermicelli. The child had colic when she had to go to stools, and at other times slight twitchings. She took the milk well, which was alternated with the vegetable bouillon. I continued the same treatment.

June 6. The patient complained less of headache. Temperature last night still was 40.1° C. (104.2° F.), but this morning it was 39.6° C. (103.3° F.). Intestinal irrigation brought still away much of glairy matter and false membrane. The pit of the stomach was beginning to be less sensitive to the touch, and so I allowed the patient to have at midday some tapioca prepared with vegetable bouillon. No injection of aspirin was to be given that evening if the thermometer

did not indicate a rise of temperature much beyond 39° C. (102.2° F.).

Next day the child was less dejected, and the temperature in the evening was 39.5° C. (103.1° F.) and that of the morning 38° C. (104° F.). The liver began to diminish in volume. I continued the boldine granules. The stools were abundant, but continued to contain glairy matter and membranes. The same treatment was continued. Light milk soup and vermicelli at midday and vegetable bouillon at night were prescribed.

June 8. Improvement more noticeable. The thermometer marked, in the morning, 37.8° C. (93.5° F.), and on the evening before it had shown 38.3° C. (101° F.). The headache had disappeared completely. The tongue was less red, but the stools had not changed.

June 9. Morning temperature was 33.7° C. (99.2° F.). Same treatment. Soup three times a day. Two days later the child wished to get up, but I found her too weak for that as yet. I allowed her a pap of bolted flour, a panado of thoroughly baked biscuits and a dish of vermicelli in milk in the evening. The fever fell entirely, temperature being 37.1° C. (98.8° F.) in the evening, and 36.8° C. (98.1° F.). in the morning.

June 15. The patient was doing relatively very well, but still there always appeared a great quantity of glairy matter in the stools, although seeming to diminish somewhat. I ordered the patient to take plain potato puree at midday, and continue the pap in the morning and the soup in the evening. She was allowed to be up one hour at first, then progressively for longer and longer.

When I saw her again eight days later, she was doing perfectly well. I ordered her to take only three boldine granules a day. I added to the diet noodles, macaroni cooked in water, with butter added upon serving, fruit cooked and passed through a colander, puree of dried peas, soft-boiled eggs, fresh fish cooked to disentegration (*cuit au court bouillon*), sole, whiting, coal-fish without the skin. Much later she was to have pullet, pigeon, roast, mutton cutlet, beefsteak, dry biscuits, cottage-cheese without cream.

When I visited my young patient again I found her doing as well as possible. There were no more membranes in the feces, but still some glairy matters from time to time. She now ate with very good appetite, but followed the prescribed regimen. She no longer took of the boldine granules.

Now, why did I prescribe for this sick girl the granules of boldine? This is the reason.

A number of authorities hold to the opinion that mucomembranous enteritis is characterized by constipation and the coagulation of the intestinal mucus. This mucus, they say, becomes coagulated in the intestine under the influence of a certain ferment to which the name of mucinase was given. This coagulating action is counterbalanced by the anticoagulating action of the bile. Hence the action of the mucinase can not take place except when there is an insufficient secretion of bile. And constipation, too, is a consequence of this bile insufficiency.

Nepper has well demonstrated this in his work, of which the following are his conclusions: (1) The bile, when in contact with the intestinal mucus, exercises a local excitomotor influence on the large intestine as well as on the rectum. (2) Bile introduced into the circulation produces an action of the same order. (3) This action resembles, at least in one respect, an exaggeration of the bilious secretion, which is due to the cholagogic influence of the injected bile.

Hence, a hypersecretion of bile inevitably brings in its train constipation, just as it permits the coagulation of the mucus by the mucinase, a coagulation which results in a mucomembranous enteritis.

The best medicament, therefore, by which we can combat this affection would be the one which, by exaggerating the secretion of bile, combats the coagulating action of the mucinase and at the same time combats the constipation by its excitomotor action on the muscular fibers of the entire intestine.

Now, then, it is with boldine that we can obtain the two results named. Boldine augments, above anything else, the secretion of the bile, according to Dujardin-Beaumetz and Bourgoin. Taken by mouth, it produces a peculiar bitter sensation followed by a feeling of warmth in the stomach. It also excites the digestive functions. Boldo is frequently employed, but the same results, or anything nearly like them, are not obtained from it. This is owing to the variability of its preparation, and frequently, too, to the smallness of the dose of boldo prescribed. This does not happen when boldine granules are administered in sufficient dosage and for a sufficient length of time, which can be done without any inconvenience.—Dr. A. Vigoreux in *La Dosimetrie*, August, 1912.

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[Supplementary to this excellent and logical suggestion, that boldine should be used in these cases of mucomembranous enterocolitis, Nepper's original advice should

not be lost sight of, i. e., to use the bile-salts in these cases. The association of these two remedies seems indicated.—Ed.]

TUBERCULOSIS AND PREGNANCY

(*Continued from November, page 1123.*)

Turning back to a former section here, I would refer to an earlier labor, in order to introduce two uses which would be here in place.

Case 1. Madame D., 23 years of age, daughter of an agriculturist. She was occupied always with housekeeping and never worked in the fields; married at 20 years a robust man, free from any defects. Her mother was tuberculous and died in confinement with a male child two years younger than the subject of these notes. The father, who always enjoyed good health, died, in the year 1887, of pneumonia consequent upon influenza.

Madame D. had all the infantile diseases, and after an attack of measles, complicated with pneumonia, which she had at six years of age, she retained an excessive frailty of the lungs, frequent nasal catarrhs, and suffered repeatedly with bronchitis. In 1891 she had influenza, from which she never recovered completely. In 1892 pulmonary tuberculosis made its first appearance, the first symptoms of which occurred after a miscarriage at six weeks' gestation.

We saw the patient the first time in December, 1894. The tuberculosis took a chronic course, with periods of better and worse. In March, 1895, the disease took a more rapid course: hemoptysis, emaciation, cough, expectoration, anorexia. And, yet, the patient became pregnant for the second time.

Auscultation showed humid râles on the right and a cavity on the left side. Bacteriologic examination of the sputa showed the presence of Koch's bacilli in midst of broken-down conjunctive tissue and epithelia infiltrated with pus globules. The general condition was very bad; no appetite; digestion impossible, so that nutritive enemata had to be resorted to.

Yet, in spite of our constant expectation of a premature delivery, the gestation proceeded to term; and in January, 1896, we were called to the parturient woman, who was delivered, at term, of a living child weighing two kilos. 300 Gms. The parturition was physiologically normal, except that the delivery of the placenta was prolonged and recourse was had to the method of expression.

The somewhat voluminous placenta had on the uterine surface a slight hemorrhagic focus about the size of a 50-centime piece (equal to our half-dollar). On making a cut, no microscopic lesion whatever was observed. The fact that the friends would not consent prevented my making a more profound examination. The course of the postpartum confinement was normal. The child was put to a wet-nurse. But the mother's tuberculosis was spurred up so that it resulted in a rapid cachexia, and the patient succumbed to pulmonary phthisis three months later.

As to the child, he is now 17 years old and has grown wonderfully, and has shown no sign of heredity. He was brought up in the country and became a farmer.

Case 2. Madame P., 33 years old. No hereditary antecedents. Her husband three years ago had a left-side pleurisy, without consequences. An older sister died of pulmonary tuberculosis a year ago.

The woman had pleurisy in the month of June, 1897, three months after her sister died, whom she attended as a sick-nurse and did not leave during all the sickness. At 25 years she had a miscarriage and at 30 she had a confinement at term. The child was given to a wet-nurse, and is at present in good health.

After following various treatments of the most eccentric kinds, the patient came into my care in January, 1898, and the diagnosis of pulmonary tuberculosis of the third degree was made. There was a cavity on the left, and humid râles on the right side were heard and crepitations and congestion at the base. Koch's bacilli were present in the sputa, and there were cough, dyspnea, and a cachectic condition. The first days of February the patient took to her bed, from which she never rose again. A consulting physician who saw the patient with me in March confirmed the diagnosis of pulmonary phthisis.

After the month of December menstruation ceased and abdominal pains and pseudo retention of urine made their appearance. The abdomen was found bloated, the single intestinal coils distended, the meteorism more pronounced on the right side. Inquiry as to possibility of pregnancy was negatived; digital examination was refused. Large enemata, washing out of the bladder, and ice on the abdomen relieved the abdominal pain. The general state of the patient became gradually worse and worse: temperature highly vacillating, dyspnea, delirium, skeletic looks.

On the 20th of March in the evening I was called to the patient's bedside to relieve her from some hemorrhage and found myself in the presence of a miscarriage at about four months' gestation. The fetus was macerated. The delivery was difficult and protracted on account of placental adhesions, which, however, allowed the extraction of the entire organ. The mother's condition put her in danger of death from moment to moment. Parturition increased her feebleness and led to a phlebitis. The right lung was in the process of softening and the patient died nineteen days after her confinement.

The placenta was irregular, lacerated, but presented nothing abnormal.

An incision into the kidneys disclosed small hemorrhagic foci definitely circumscribed. Enclosing the tissue in paraffin and using a microtome, we made cuts at different points. The method of Kulme and the hematoxylin-eosin tests did not give us any preparation that revealed a tuberculous lesion.

In looking for Koch's bacilli, we made use of various kinds of preparations, and used the reagents of Ziehl and of Ehrlich. Our examinations have been made on the cuts we obtained from the placenta, also with the blood we obtained from pressing out of it, and with the water of washing it. The results were always negative. Fragments of the placenta were triturated and guinea-pigs inoculated with it, using 5 Cc. per animal. One of these animals was killed twenty days after, and it presented nothing abnormal. Another control-animal was used for another experiment after more than a month and a half.

From these two personal observations and from the study of preceding publications bearing on this subject, we are obliged to draw certain conclusions, but which we do not pretend to offer as conclusive.

The absence of bacilli may of itself afford a sufficient proof. In certain cases of manifest tubercle of serous membranes, especially of the pleura, it is often very difficult to establish the presence of bacilli in the exudate, while on the other hand it is not possible to affirm absolutely that these microorganisms are absent. In such a case inoculation is, according to Gombeau, Chauffard, Roux, and Nocard, the only criterion for a diagnosis and it would enable to discover bacilli when the microscope might not be able to do so.

Whatever be the opinion which we may adhere to, and even in spite of strict observation—using simply prudence based on experiment which shows us that pregnancy aggravates a case of tuberculosis—we must not lose sight of Peter's maxim, which he formulated in 1879, about persons having tuberculosis; towit:

"A tuberculous daughter should not marry, a wife should not be pregnant, a mother should not give suck." We make use of this formula and apply it in the work in which we are occupied.—Dr. George Petit, in *La Dosimétrie*, July, 1912, p. 97.

A CONSULTATION IN THE ETRUSCAN LANGUAGE

In a recent communication to the Academy of Inscriptions, Professor Martha, of the Sorbonne, has aroused lively interest by his presenting the results of his researches on the writing and translation of the Etruscan language, which had hitherto been unintelligible. Among the inscriptions which he succeeded in translating, Professor Martha (*Paris Médical*, May 11, 1912) tells of a medical consultation, a description of which he had found upon a lead plate.

The consultation had been requested from a healing god by a man 80 years of age who could take his food only with difficulty. In his reply, the god advises him to eat a pap of boiled grains and to drink a little fresh water, in order to make the pap pass the gullet more easily. The curious ancient text reads as follows:

"An old father, aged 80, eats miserably. Alas! because of his weakness he has become ill, his trouble is chronic. The food is cut into sufficiently small pieces. Oh! supreme Majesty! because of an inability to chew, the food sticks in the gullet. Alas! owing to his feebleness, the grandfather can hardly walk, and from two recent falls his shoulder is much swelled and his skin discolored. His humors become bad, and, moreover, his rest is badly disturbed."

Then follows the response of the helpful divinity:

"Rest in peace. If the inability to chew persists, eat a pap of cooked grains in sufficient amounts. After this, eating will be easy. If some little bits should accidentally cause choking, a few teaspoonfuls of cold water should be sipped drop by drop and this will clear the passage. If the shoulder is swollen and the blood extravasated, let the spot be rubbed with grease. The blood swelling will disappear and by and by the little father will be lively."

MISCELLANEOUS ARTICLES

For the Widows and Orphans—A Noble Work Inaugurated

SOME months ago we asked all readers of CLINICAL MEDICINE who were interested in the establishment of a home for aged and helpless physicians and their families to write us, telling what they thought of the plan and what they would do materially to make it a success. We received many letters, but the pledges of assistance were too small to warrant going further with the plan at that time.

However, we have not lost interest in the idea of providing for the needs of the old doctor and the dear ones that might be left behind if he should be taken away without making proper provision for their care. Some time ago we learned that an institution to meet this need had already been established in the city of Baltimore and that it was struggling hard to secure the funds required to make it a success. This is the Home for Widows and Orphans of Physicians (Inc.), which owes its existence largely to the devoted personal efforts of Dr. and Mrs. Eugene F. Cordell, of Baltimore. For some time we have been corresponding with the Doctor and his wife. What they have already done is best set forth in the following letter from Mrs. Cordell:

It will be of interest to you and to many of your readers to learn that the Home for Widows and Orphans of Physicians has been opened and is now in operation. It was founded on December 16, 1909, and the Board of Managers organized on December 28, following. On the 11th of January, 1912, we purchased in fee at 1615 Bolton Street, in the best residence section of the city, a handsome three and a half story residence, with a frontage of 20 feet, and extending 132 feet back.

We believe that this is the first institution of the kind ever founded; which seems strange, as we have found that there are many such persons needing succor and shelter. We think it ought to meet with favor among the profession generally, because it admits, without entrance or any other fee, the destitute widow and orphans of any reputable physician.

Such a large undertaking involves a great responsibility and expense, and we have had many vicissitudes and discouragements. But we have persevered and at last begin to see the early fruition of our hopes, much earlier than we could have expected.

Our charity is dependent for maintenance upon the subscriptions of our friends, and we hope that many who read this will become annual subscribers. A sufficient number of such subscriptions would provide a permanent fund for maintenance and would materially lighten our burden. As soon as possible we shall start a permanent endowment fund.

I urge that it is the duty of the medical profession to provide for its needy ones, and we now offer them the opportunity to do this in the most effectual way. The poorhouse stares many a one in the face—we are trying to save them from such humiliation and disgrace. Yours sincerely,

MRS. EUGENE F. CORDELL,
President.

In further explanation, it should be stated that at the last session of the legislature of the state of Maryland an annual appropriation of $1500 was voted to this Home, but the bill was vetoed by the governor. Also, at the last meeting of The American Medical Association an appeal was made to that body for assistance. This appeal was received with applause, but it was not deemed best to comply with it at that time, although the work of the institution was commended. The Home has the indorsement of Cardinal Gibbons, Bishop Murray of the Protestant Episcopal Church, the Hon. Hervey Stockbridge of the Maryland Court of Appeals, Dr. Abraham Jacobi, President of the American Medical Association, Dr. Hugh H. Young, President of the Medical and Chirurgical Faculty of Maryland, Dr. William H. Welch of Johns Hopkins University, and other prominent citizens of Maryland.

The expense of equipping the new building and preparing it for occupation has been heavy, but the Board of Managers has done remarkably well with the funds at its disposal. In a personal letter to the writer, written August 1, last, Dr. Cordell said: "We have been at considerable expense in putting the building in condition, providing furniture, papering, plumbing, etc. The

MRS. EUGENE F. CORDELL

President of the Home for Widows and Orphans of Physicians.

house is almost completely furnished, and we have a few hundred dollars on hand."

Since then the house has been opened and is now in operation. At present the occupants necessarily are few in number, owing to the small amount of money available. One of these occupants is Miss Latimer, the helpless invalid daughter of a deceased physician, for whom an appeal was made some time ago through these columns.

With regard to the character of the work, Dr. Cordell writes: "The scope of the work is national. Our title does not limit it to this locality. We desire to receive any doctors' widows or orphans who need help and we will do the best we can for them. We do not exact any admission or other fees, but shall be glad if applicants will aid us with any funds they may possess or may be able to command. The friends of Miss Latimer (of whom you know) raised $150 toward her support. We hope to be able to do something for the aged and helpless doctors. Should any such apply, we surely shall not turn them away if we have any room for them. Our sympathies went first to the widow and orphans who are most helpless. Surely, when their natural protector—the doctor—is gone, they should be cared for if left without means."

Certainly there can be no object more worthy than that of this Home, and it *should* attract the support of every physician. We therefore urge every reader of CLINICAL MEDICINE who can possibly do so to lend what financial aid he can. In furtherance of that appeal we have decided to make the following offer:

First, in order that the assistance given may involve no burden upon the subscriber, *we hereby offer to give one-half of every new subscription for* THE AMERICAN JOURNAL OF CLINICAL MEDICINE, *that is received from you or through you, to the Home for Widows and Orphans of Physicians at Baltimore.* Most of those who read this are already subscribers, but there is nothing to hinder you from telling your medical acquaintances, or from subscribing for a friend or for several friends, if you are so inclined. Large clubs may be organized in medical societies, or doctors' wives may take a hand.

Second, we shall be most happy to receive independent subscriptions for the Home, and these will be forwarded to its Board of Managers. Subscriptions ranging from $5

DR. EUGENE F. CORDELL

Who has done so much for doctors' widow and orphans.

to $500 each will be most gratefully received. If preferred, checks may be mailed directly to Dr. Eugene F. Cordell, 257 West Hoffman Street, Baltimore, Maryland, but we shall appreciate it if subscribers will notify us of their gifts.

This entire plan has the hearty approval of Dr. and Mrs. Cordell.

We believe that no charity ever created was more worthy than this one. It deserves the moral sympathy and the financial support of every doctor and every doctor's wife in America. Therefore we appeal to you. Talk it over with your wife, and between you plan something to help. You can at least show your interest by sending CLINICAL MEDICINE to one medical friend (better a dozen), knowing that half of this money will go to the Home. Please, don't lay this matter aside. Do something today—at once.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY

(*Continued from November, page 1128.*)

"Let there be a world-wide embargo on rats," said Rucker, of the United States Public Health Service, in his fine address. "It is the plague of rats that transmits the bubonic plague. . . . Where trade will go, rats will go, and where rats will go, plague will go." He described in detail the methods that are now being employed for ridding ships of rats and preventing their transportation from place to place. Plague is now present in Porto Rico, and Watson's description of the manner in which our government officials go about it to eradicate this disease is another example of the thoroughness of our public officials in scientific work. Also, it gives us new respect for the strategic powers of the rat; for here, as elsewhere, this ubiquitous rodent was definitely proven to be the means of spreading the disease, and to unexpected places.

Those of us who are interested in the fine work that has been done by Anderson and Goldberger in determining the etiology of acute infantile paralysis (which, thanks to those eminent workers of the Hygienic Laboratory of the United States Public Health Service, is now known to be caused by a filterable virus which finds lodgment in the nasal mucosa and is disseminated with its secretions) were interested in the discussion of this disease in which Swedish, French, Austrian, and American scientists participated. Sweden has just passed through a serious epidemic, and the research-work of some of its investigators was recorded in a thick volume which was distributed among the delegates to the Congress. During the discussion, Rosenau, of Harvard, made the startling statement that he had been able to cause the transmission of this disease to the monkey by the bites of the stable-fly.

In various papers and discussions at the Congress many points of interest to the laboratory worker were brought out. For instance, in speaking of culture-media, Novy, of Ann Arbor, utilized the fact that serum from which a portion of the salts has been removed does not coagulate when heated. These salts are removed by placing the serum in a celloidin sack which is suspended in distilled water for several hours at a temperature of about 35° C. Running water, though not essential, does the work in a much shorter time. It is not necessary to remove all the salts. The serum may now be sterilized in an autoclave. Though not mentioned by Dr. Novy, the addition of salt will again render the serum coagulable.

The consensus of opinion, as expressed by Novy, Vaughan, Parke, Dieudonné, Ledingham, and others, in the discussion of Jordan's paper on water examination, was that too much importance should not be placed upon the presence in it of bacteria belonging to the colon group and allied organisms. The inspection of the source, surroundings and condition of the water supply by a competent sanitary engineer was of equal if not greater value. Furthermore, an inspection is essential to a correct interpretation of the result of a bacteriologic examination.

The transmission of a malignant tumor by a filterable agent was reported by Dr. P. Rous of the Rockefeller Institute. This was a sarcoma-like tumor occurring spontaneously in a fowl. By means of the filtrate of a normal salt suspension of tumor-cells he was able to produce typical tumors in other fowls of the same variety. In the near relatives of the original fowl metastases also occurred, in addition to the primary tumor. A medium of great practical value for the recognition of acid- and nonacid-producing bacteria was suggested by Dr. A. J. Bendick, Columbia University, New York. This medium consists of ordinary 1 1-2-percent nutrient agar, 2-percent lactose, sufficient litmus to color, and 4 Grams of precipitated chalk per liter. On this medium, acid colonies show red and in

addition are surrounded by a clear zone due to the solution of the carbonate by the acids produced. This medium should prove of exceeding utility in milk and water analyses.

Dr. D. L. Harris, of St. Louis, reported the production of antirabic immunity by the intraspinal injection of virus. He pulverizes the brain and cord of an animal killed by a fixed virus. This is accomplished by rubbing it up in a mortar while frozen hard, then drying it in a vacuum over sulphuric acid, at a low temperature. This material when placed in sealed tubes loses virulence rapidly during about ten days, after which it remains fairly constant and keeps for a very long time. By the intraspinal injection of 1-10 milligram of this powder in experimental animals, he has produced immunity within a few hours. This is shown by the fact that such animals withstand several times the minimum lethal dose of street virus given twenty-four hours or less after the immunizing dose. If this plan of antirabic vaccination should prove generally successful (and his experience seems to show that it will), the prophylactic treatment, when applied to human beings, will be of much greater value than at present. The production of immunity in a few hours, or days at most, instead of weeks as now required, will enable us to save patients presenting lacerations of the head and face, in whom the disease ordinarily develops within a few days. The new vaccine material, as it keeps almost indefinitely, can be carried by every drug-store, to be available on a moment's notice.

The nine sections, into which the Congress was divided, were all in session simultaneously, consequently it was impossible for the CLINIC representatives to hear all the good addresses delivered. Indeed, we know that we missed some of the very best, including the splendid symposium on sex-hygiene, which was participated in by Saleeby, of London; Howard A. Kelly, of Baltimore; and Charles B. Davenport, of the Biologic Laboratory of the Carnegie Institution.

It was our privilege to hear Professor von Noorden's paper upon the choice of foods in relation to disease. This was read in English —and excellent English, too. We lack the space even to refer to many of the valuable points which he raised, but his suggestions concerning the diet of the obese may be used as an illustration of the character of his article. Professor von Noorden said that reduction-treatments have generally been wrong in the too general cutting down of the diet, particularly as regards proteids. The albuminous portion of the diet must not be too much interfered with lest the body nutrition be impaired, with the resulting fatty degenerations so likely to occur in the obese. The main point to be remembered is that the caloric value of the food should be reduced. This can best be accomplished by limiting or eliminating that form of food which in a given bulk has the highest caloric value, i. e., the fats. If cutting out the fats is not sufficient to produce the desired reduction of weight, then the quantity of carbohydrates may also be reduced to the required limit.

We were also much interested in von Noorden's remarks upon intestinal autointoxication. He said that the obscure pains, occurring in different portions of the body in certain individuals, are due to this cause, that is, intestinal toxemia. In these cases a neurotoxin is produced which acts as a poison to the nervous structures, the result being a series of neurites, and these are responsible for the wandering pains from which these patients suffer. When these pains are manifested, the amount of indican in the urine is increased to four or five times the usual quantity. To meet this condition, Dr. von Noorden outlined a diet which would put as small a tax as possible upon the digestive tract and in which the tendency to putrefactive changes in the proteids would be overcome or corrected by the use of monosaccharide in the place of the ordinary sugar; these including dextrose, levulose, and glucose, and the monosaccharide sugars found in ordinary sweet fruits, honey and some syrup. Dr. von Noorden also pointed out that the Mosaic rule forbidding the mixing of meat and milk was founded upon sound dietetic principles, inasmuch as this combination tends to constipation and toxin formation. Dr. von Noorden's advice, in its fundamentals, seemed very familiar to those of us who believe in the doctrine of "cleaning out and keeping clean."

We have hardly alluded to the exhibit arranged in the building recently erected for the National Red Cross Society, yet this display was one of the very best features of the Congress. This exhibit was open to the public from early morning until 10 o'clock at night. In the spacious hall, open to all, popular lectures upon preventive medicine were delivered, all sorts of subjects being discussed, from the killing of the mosquitoes

to first aid for the injured. The Army, the Navy, the Public Health Service, the Bureau of Chemistry, many state boards of health, municipal health organizations, universities, institutions for the care of the insane and other defectives, corporations like the National Cash Register Company, The American Telephone and Telegraph Company, and the great insurance societies, voluntary organizations for the betterment of human conditions, societies for the study of eugenics, sex-hygiene, child labor, food problems, and other bodies were represented. Manifestly, it is impossible to tell a fraction of what we saw. Indeed, we really could see but a fraction of it all in the time at our disposal.

Some features of the exhibit which especially impressed the writer were the splendid demonstrations of the provisions made for the care of the sick and wounded in the Navy, the exhaustive manner of examining recruits in the Army, and the methods employed by the Public Health Service for destroying rats and squirrels. The incessant care shown by the army medical service for the men in its charge could be illustrated no better than in the series of pictures showing how the soldier's foot has been exhaustively studied with the x-ray, in order to ascertain the effects of pressure upon the bony structures under all possible conditions. As a result of these studies, an army board, headed by Major Munson, has evolved a shoe which for the first time is anatomically correct; and this scientific shoe, it seems, is certain to be adopted largely in civil life also, because of its manifest advantages, as it has been in the army.

Other things in which the writer was especially interested were the demonstrations of the Binet-Simon method for grading the intellectual status of children; the magnificent eugenic charts showing the influence of heredity in mental and physical disease; and the wonderful reform in the treatment of the insane. Do you know that those instruments of torture, the straight-jacket, the manacles, the "crib," the camisoles, and the "cuffs" have been relegated to the days of barbarism; and that the "padded cell" of the newspaper reporter is no more? Do you know that eight states have already provided by law for the sterilization of the unfit; namely, the states of Indiana, Washington, California, Connecticut, Nevada, Iowa, New Jersey, and New York? At this exhibit, also, those in attendance had an opportunity to see the dire ravages of hookworm, in the persons of a girl of twenty-eight who had the stature and mentality of one of sixteen, and a boy of sixteen who seemed to be only nine or ten

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And so we might go on indefinitely. But we want to say a word about the great government bureaus at Washington. Every physician who goes to our national capital should visit these places. For instance, the writer will not soon forget his visit to the Bureau of Chemistry, where, through the kindness of Dr. Kebler and the special courtesy of Dr. Hoover, he was enabled to get a glimpse of some phase of its work. Take for instance the subject of crude drugs. We were shown a sample of drug which was imported as "saffron"—this the Bureau found to be calendula colored so accurately with a coaltar dye that even an expert could scarcely tell the difference. Calendula is worth fifty cents a pound; saffron—ten dollars! Certain importations of belladonna root turned out to be 80 percent poke-root. Senna siftings were exhibited which contained from 10 to 18 percent ash or waste; the Bureau has shown how these siftings may be cleaned and made usable. We also learned that it is possible to identify the source of honey under the microscope by the appearance of the pollen grains, and that honey sold as "imported" was thus proven to be "made in California."

Dr. Reed, one of the Bureau's able women lieutenants, asked the writer whether he was "fond of fig-newtons." Then she showed us some of the figs used in that delicacy and in fig pastes, some of the delectable components of which were sand, dirt, and various crawling things—living (and dead) larvæ from the fig-moth, and numbers of the ordinary sugar-mite. This reporter lost his appetite for fig-newtons! Dr. Reed also showed us some celery seed that was one-third rock, tapioca colored with lampblack and sold for pepper; and samples of desiccated eggs which had distinctly "seen better days."

The Bureau's exhibit of fraudulent and dangerous patent medicines was intensely interesting. Poisonous hair-dyes, habit-forming catarrh dope, alcoholic aphrodisiacs, and consumption "cures" that harm and cannot help were exhibited for what they really are. It is gratifying to know that these evil things are being shown up and wiped out, largely through the energy of the men of this Bureau. We know that it is unsparing in its condemnation of fraud, and it is gratifying to feel that its efforts are being exerted with equal

strenuousness to add to the value of the products of honest manufacturers with whom it is cooperating. Bureau men like Emery, Salant, Chestnut and Murray are doing constructive research-work of the very highest order.

"But what is to become of the doctor," we hear some of you ask, "when preventive medicine becomes the established order?" There is no cause to worry. Under the new conditions, it seems to us that the demands for the services of the physician will be greater than ever. Thus, as you no doubt have noted, biologic remedies are being used more and more for the prevention of disease. The time will doubtless come when the inhabitants of entire communities and the employees of great industrial corporations will submit voluntarily to vaccination against typhoid fever, as they are now vaccinated against smallpox. Only physicians, and that well-trained ones, can do this work. School children will receive appropriate treatment to keep their eyes, ears, throats, and digestive apparatus in a healthy condition, and both business men and laboring men will seek to anticipate disease that they may prevent it, instead of waiting, as now, until the evil days come. The biologic remedies will be used more, the drugs employed (and they will always be used—and more, when they are applied intelligently) will be of the most definite character possible, and the highest aim will be to prevent sickness or check it in its incipiency. We see this tendency (it was much in evidence at the Congress) in the efforts being made so earnestly for the preservation of child life. All the resources of the physician will be brought into play, and the result will be the enrich ment and strengthening of our national life. Neither as professional men nor as business men do we need to fear the new day.

MISTAKES: ONE BIG ONE, AND MINE OWN

It was a labor case. For seven days a powerfully built woman, the wife of a farmer, and accustomed to field work, had been in pains. As nothing seemed to be doing, they loaded her on a springless two-wheeled cart, and coming some ten miles over impossible roads brought her to my dispensary. One arm was descended and was gangrenous. The shoulder was jammed into the pelvis by all of the mighty muscles behind it. A finger could scarcely be inserted between the child and the uterine wall. If forced in, it was paralyzed by one of the powers that be. The uterus seemed to have no periods of relaxation. The woman herself, however, was in pretty good condition. She did not seem to suffer much pain and was not greatly weakened, apparently.

I took the arm off at the shoulder. Then I put the woman under chloroform until the uterus relaxed, performed podalic version and delivered. It was not done quite as quickly as that, but eventually it was done. The child was dead but not decomposed. The placenta was removed with the child. There was no bleeding. I sat beside her until heart and respiration were getting toward normal. The uterus contracted. The woman regained consciousness enough to answer my questions. Then I stepped out of the room feeling like patting myself on the back over the finishing of a difficult task.

In about five minutes the husband rushed up to me saying, "She is dead." I seized my hypodermic syringe and rushed in, but she was surely dead beyond my ability to resuscitate. It seems that shortly after I left, the old midwife emeritus they had brought with them told her she must stand up and walk about so that the parts would settle in their proper position. She stood up, took three or four steps and collapsed. Since then I have always informed the ubiquitous midwife emeritus that the upright position immediately after chloroform, to say nothing of after anything else, has dangerous possibilities.

The husband's explanation of the disaster was about as follows: "Jom Raj (the Deathking) seized her and was bearing her away. You, Great Sir, contended with Him, tried to take her away from Him and succeeded. This made Him angry and the moment you were out of the room He snatched her away quickly."

A. L. Kennan.
Lalgarh, Midnapore District, India.

SOME REMARKS UPON TREATMENT OF PNEUMONIA

On the cover of Clinical Medicine for April last it is stated that "the foes we have most to fear are, not men and women, but . . . ." Now, Mr. Editor, if it were not for men and women, the indifference, indecision, ignorance, servility, and all the rest of the things that we have to fight would be mere harmless abstract qualities. Only when they are embodied in men and women do they become active and pernicious. Therefore you will understand that whatever

remarks I make are directed against men and women only as they embody these harmful qualities.

The writer happens to be quite a little past forty, and so, according to Doctor Osler, ought to be "out of the running"; but the experience and knowledge gained in the years since that milestone was passed are, on the contrary, a valuable asset to him and also to his patients.

In the past few years the mad rush after germs and modes of killing them has almost pushed every other theory off the stage. Yet, in spite of these things, the death-rate from pneumonia and bronchitis last winter was exceedingly high, much of which I attribute to the senseless practice of treating these diseases with cold air, ice-packs and (latest of all fads) ice-water sprays upon the nude body.

If cold air (not merely fresh air, but cold air) is really the *sine qua non* in the treatment of these diseases, how does it happen that they have been so rampant during the very season which showed a steady, low temperature for so long a time?

Do not understand me as being opposed to fresh air; but draughts and zero temperature are not necessary for a supply of fresh air. Furthermore, the temperature referred to is not that of the room, as is the usual custom, but I insist that it is the temperature of the air the patient lives in—of the air he breathes or inhales into his diseased lungs. Consequently I direct the thermometer to be suspended at the head of the patient's bed, on the side nearest his head, at such a height as to bring the bulb a little lower than his head.

I have personally found, by questioning not only the attendants in private practice but the head nurse in a noted hospital, that to regulate the general temperature of the sick-room is the custom of the physicians in attendance, my informants naively adding that they would "call down" any nurse who allowed the temperature of the room to rise above sixty-five degrees; and in this hospital the instrument was hung against the wall at a height convenient to be read, and even at the side of the room at some distances from the patient.

Allow me to relate, as briefly as I can, a few cases in illustration of this foolish custom, and its painful results.

Case 1. Time, February, 1883; place, Massachusetts, modern farm-house, situated on highest point of land in the neighborhood, facing west and northwest, with a clear sweep of five miles for the wind to rush across without a break until it struck this house. In the front room lay a lady of about fifty, ill with pneumonia. The attending doctor ordered the front door opened frequently, so that the wind, and oftentimes the snow and slush, could rush in and thoroughly chill the large front hall. The outside door was then closed, and the door into the sick-room opened to let that icy air in for the sick old woman to breathe. The nurse, her daughter, a stout healthy woman of past twenty, was obliged to wear a shawl to keep any way comfortable, as no other heat was allowed. Morphine and atropine were given to deaden the sense of pain.

Result: Requesting, one day, to be raised in bed, the daughter sat on the bed back of her mother to support her, until she could hold her no longer when, gently disengaging herself to lay her mother down, the body fell with such dead weight that she called for help, only to have her fear confirmed, that life had quietly left its clay tenement—"frozen out."

Sequel: The day of the funeral found the husband, a man of seventy, in bed with pneumonia. As he was my best-loved uncle, I promptly decided to have something to say about the treatment.

Knowing of the cold-air treatment given my aunt, I declared that my uncle would not get any cold-air treatment, though I was obliged to make the trip every day, difficult as it was. I said to the attending physician, who was a good friend of mine, "Fresh air is one thing; cold, icy air is quite another. I shall not meddle with the medicinal treatment of the case, but no cold air or applications for this patient, not on your life."

I arranged for a periodic supply of fresh air, which, however, was well warmed by a roaring fire in the kitchen before allowing it to enter the sick-room. I hardly ever met my doctor friend and kept no tab on the remedies prescribed, but I know that my uncle got well speedily, and my confrère wrote me a splendid letter, expressing his thanks for the object-lesson I had given him.

Case 2. Called twelve miles in southern Florida to see a boy twelve or fourteen years old, ill with pneumonia, who had been given up by the physician. The place had no facilities for heating. I prescribed the indicated remedies, and by means of boards rigged up a platform around the patient's head, and on this I placed several lamps. Spare clothes were tucked in the open space beneath the board. The air breathed by the boy, therefore, had to pass through the circle

of lighted lamps, which warmed it and also raised the general temperature of the room.

Before afternoon improvement had already set in. Returning the following day, I found the patient still progressing. On the fourth day I left sufficient medicine, and did not find it necessary to call again. The patient came to my office not long afterward hearty and well.

Now let me cite the case of a young woman, as reported in the medical press. In December, 1911, this lady came down with pneumonia and upon the advice of the physicians was taken to a hospital near Boston, as being the best place for treatment. A few days later the father went to see his daughter but at first was denied admittance to her presence, as she was "receiving treatment" at the time.

Insisting that he was paying the bills and entitled to know all about her treatment, he pressed his way to the sick-room regardless of the attendant's remonstrance, and found his daughter stretched nearly nude upon her bed, undergoing a spray-bath of ice-water, with electric fans running to emphasize the effect. His questions and remonstrances were met with the assurance that it was the proper, and indeed the only, thing to do for the disease.

Result: Death within twenty-four hours. And, as the comic papers express it, "can you beat it?"

Now, in face of this experience, behold the following excerpts from an article published by a learned gentleman of the Johns Hopkins University:

"As a matter of fact, all bodily pains are more or less evanescent. Toothache will cure itself if you possess your soul in patience. . . . Neuralgia always stops spontaneously sooner or later; even the terrible pains of sciatica cannot last forever. . . . To a perfectly normal and vigorous man, no known infectious disease is necessarily or invariably fatal. . . . The consumptive now is ordered to sleep in the open air; is fed on rich milk and eggs. . . . No drugs whatever are given; no effort is made to fight the bacilli directly, that work is left to the blood, and the blood is strengthened for it. . . . Likewise with pneumonia and other diseases, the patient is well nourished and nursed, medicine is given only as a reinforcement of the blood, etc. The actual fight—the strenuous struggle—is waged by the body itself. And in the struggle is emphasized the truth of the saying, 'Self-preservation is the first law of nature.'"

Very well, my dear sir. Then why not let the act of self-preservation go on, instead of forcibly burying the body in an ice-pack, or spraying it with ice water, or deluging it with cold air, thereby paralyzing the body functions?

No, they do not all die, of course; not at that time; but kindly keep tab on subsequent conditions and sum up the later results. Better leave the packing in ice to the proper person, at the proper time, and not have the undertaker complaining that there was nothing for him to do, that the doctor had done it all.

Come with me to that portion of the earth's surface called the torrid zone, open your eyes and look about you. Did you ever before behold such luxurious growth, such myriads of forms, hear such sounds? Ever before hear such sounds in the air, in the earth, and in the waters under the earth? Air, earth, water, all teeming with multitudinous forms, all actuated by the essence or principle we call Life?

Now compare this with the reports from our pole hunters. Read of the silence and the desolation and the still death which prevails at both those extreme areas of the globe called the frigid zone.

A comparison of these two phenomena will furnish an excellent simile of the results from ice-packs and cold air in pneumonia as compared with its treatment under conditions of warmth.

C. H. Lanphear.

Worcester, Mass.

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[We heartily agree with Dr. Lanphear that the cold-air and cold-water treatment of pneumonia, as, indeed, of all the continued fevers, has been run to the extreme, although we doubt whether it is as common as the author seems to think. Perhaps he has been unfortunate in running into a great deal of it. We further agree with him that the chief essential as regards the air is that it be fresh rather than cold. The truth is, application of cold to the fever-patient, whether by means of air or of water, while it has its advantages if practised in moderation, exerts no real influence upon the fever-process. This can only be done by intelligent use of indicated remedies that strike at the pathology of the disease.

The author says nothing about the remedies employed in the cases he cites; but where he is in charge we have no doubt he does not forget the value of aconitine, digitalin, veratrine, and strychnine, variously combined, to bring down these sthenic temperatures by

the proper regulation of the vasomotor mechanism, which constitutes the logical and most efficient method of reducing fever. This treatment, coupled with a vigorous cleaning of the intestinal tract and maintenance of hygienic surroundings, usually will suffice, without subjecting the patient to the torture of the ice-spray or the cold bath.—Ed.]

RED CROSS STICKERS

The Red Cross seals which have for some years been sold for a few weeks before Christmas, the proceeds being employed for the benefit of the tuberculosis crusade, are again being offered for sale. It is a source of satisfaction to observe that the total receipts from these sales increase year by year, and it is to be hoped that physicians will encourage their patients and friends to use the little stickers for sealing their Christmas packages and their letters for the next few weeks, and thus contribute to the world-wide fight against the disease that causes more trouble, more sorrow and greater economic loss than almost any other disease that afflicts man.

BUTTERMILK TABLETS AND PASTEURIZATION

It gives me pleasure to submit to your readers the result of another year's experience with galactenzyme tablets in the treatment of digestive troubles in infants and adults, that is, in those gastric and intestinal disorders due to an inability to digest milk, human or animal.

In looking back over the past twenty-five years, one fact is strongly impressed upon me, namely, that the number of babies severely sick with indigestion and gastroenteritis is diminishing from year to year. This I attribute to two influences, the first of which being the fact that physicians are all the time educating their families up to a higher standard of clean, fresh, pure milk, free from a dangerous number of pathogenic bacteria, and also free from cow manure. In our city of Chicago the pioneer work was done and is being most effectively carried on by the Milk Commission of the Chicago Medical Society. The second reason for the beneficial change is the effort made by the Health Department to furnish the great masses of the people a milk which shall be clean and wholesome, and to eliminate all sources of contamination, from the cow to the consumer.

In using the galactenzyme tablets, I no longer put the tablets into the milk some hours before feeding, although I had very fine results sometimes by this method. Instead, I am now giving to the child one or two tablets immediately after feeding; which, in the case of infants and small children, is easily done by crushing a tablet in a spoonful of water and feeding this from the spoon. Older children and adults easily swallow or chew the tablets. [Swallowing them whole is not so desirable.—Ed.]

A preliminary cleaning out with calomel and castor oil I find necessary in the beginning of treatment. Then give clean milk and galactenzyme. The trouble usually is over in a very few days.

Should some of our enthusiastic lawmakers and boards of health be able to force upon the public pasteurized milk, instead of providing for absolutely clean milk, galactenzyme will have an immense field of usefulness.

Probably most physicians who treat many babies have observed that the children fed on pasteurized milk did not thrive well; also, that older children and adults would not drink it, on account of its peculiar taste. The fact that pasteurization destroys most of the lactic-acid bacteria so necessary to the proper digestion of milk accounts for the clinical observation that children fed with such milk do not thrive well. It also explains why practically all these children do so much better when fed with galactenzyme—we are supplying in a great measure what the fraud of pasteurization has taken from the natural milk.

Clean, pure milk is the demand of the day. Dirty milk should be condemned and destroyed. I have never been able to convince myself that pasteurizing dirty milk (which is another name for milk with cow manure in it) made it either more palatable or digestible, but if we are forced, by overzealous lawmakers, to use it, then give plenty of galactenzyme to help nature dispose of that kind of milk.

J. A. Clark.

Chicago, Ill.

THAT BLACK EYE

When one is walking about the streets for maybe two weeks or so with a black eye gotten in a perfectly legitimate manner, all his neighbors and everybody he meets invariably will ask for the cause of it, and mostly will convict him of domestic infelicity unless he gives an elaborate and detailed explanation.

For a good many years I have wanted to know of something that would hasten the

usually slow absorption of the purple ecchymosis, but have been unable to learn of one until lately.

While examining a sore foot on my driving mare, she quickly raised the other foot and the calk of her shoe struck me at the outer angle of the orbital cavity, drawing the blood. Next morning the eye was surrounded with a dark-blue ecchymosis. Later I met a fellow practitioner, who advised me to massage the parts with a handkerchief wrung out of water as hot as could easily be borne. I did so for fifteen minutes at a time several times for two days, when the discoloration was so removed as to be scarcely noticeable.

I know of no other little thing of which we are more glad to be quickly rid than a black eye and it is generally supposed that nothing can be done to hasten absorption. Hot-water massaging certainly does the work.

V. E. Lawrence.

Ottawa, Kan.

AN ENORMOUS HYDROCELE

Some weeks ago I was requested to make a call on a 75-year-old gentleman, living in the country, for the purpose of removing a tumor of the stomach. Questioning his son as to the exact location of the tumor, I had no difficulty in believing that I had to deal with a chronic hydrocele. And this was correct, for the old man told me that he had this strange growth ten years or more, and a hydrocele it was indeed.

I found the man walking around and he admitted that he had never consulted anybody before. With the necessary instruments sterilized, I had him sit on the edge of the bed, where he slowly pulled out of his trousers an ordinary gunnysack, in which he kept the tumor. When I first beheld this phenomenon, I thought I was looking at the man's abdomen, as the umbilicus was plainly to be seen in the center of the large mass. On closer inspection, however, this enormous mass proved the hydrocele, with the penis in the center; which latter, instead of presenting an elongation or at least an eminence, had sunk down into the tumor, presenting a distinct median depression. The tumor was tense, and the epidermis shining from the long distention.

I have always had some misgivings as to the tapping of a hydrocele. In the first place, the differential diagnosis between hydrocele and incarcerated hernia must be sure; and, in the second place, providing the diagnosis were made, the fear of wounding the testicle was always a thing to be dreaded. Short-sighted man—and useless worry. Here was a plain case, where nobody could possibly make any blunder in diagnosis, even if blindfolded; and, having no fear of wounding anything within a foot or so, I courageously punctured the tumor and drew out, I do not know how many ounces; but this was the hardest part of the task, to keep on drawing and emptying the different utensils and pouring the fluid into a large pail.

I thought to myself, judging by the size of this monster, that this was easily the largest hydrocele on record. But on looking up the matter I find that Van Buren and Keyes tapped one of 64 ounces, and in Dr. Dujat's cases from the hospital of Calcutta, the quantity drawn off in 18 hydroceles varied from 50 to 120 ounces in each case. I therefore sincerely regret that I failed to make exact measurement of this quantity, which nearly half filled an ordinary slop-bucket. A conservative estimate would be 1 gallon, or 128 ounces.

I merely drew out the serum and injected nothing afterwards, but the last report was that the old man was doing fine, with no recurrence of tumor so far. In case this should happen, I intend to inject a small quantity of pure carbolic acid after emptying the hydrocele-sac.

H. G. Henriksen.

New Market, Minn.

A CHRISTMAS SUGGESTION

By the time this gets into your hands, about thirty thousand of you, with fifty thousand more of your wives, sweethearts, children and grandchildren, will be puzzling your heads over that most momentous and most difficult of all questions to answer: "What shall I get him (or her) for Christmas?"

Now we are going to help you settle that question, and if you take our suggestion and don't say, "Thank you," *after* Christmas, we shall be disappointed.

For the young men and young women of your acquaintance buy "Backbone." It is filled with just the kind of inspiration to more manly and womanly, and more useful, lives that they—and we—need.

For the older and more thoughtful people—for the teacher, preacher, schoolma'am, mother-in-law and everybody else who needs good cheer and encouragement, get copies of "Treasures of Truth."

For yourself, for the doctor-friend, -lover or -husband buy a copy of Dr. Rose's in-

imitable poems, "Ol' Doc Lent"—he is the most lovable doctor in the realm of poesy.

Backbone sells in art binding at 50 cents; in de luxe limp leather at $1.00. We'll send you six copies, in art binding, prepaid for $2.00. "Treasures of Truth" in art board binding for $1.00. "Ol' Doc Lent" for $1.00 art board, and $2.00 in the de luxe binding.

Here's a "just before Christmas" special: Six copies of "Backbone" (art binding), three of "Treasures of Truth" (art binding), and one of "Ol' Doc Lent," in de luxe limp leather binding, for $5.00 (regular price $6.25.)

ROCKY-MOUNTAIN FEVER (SPOTTED FEVER)

Reading your request, in the October number of CLINICAL MEDICINE, for short articles on Rocky-Mountain fever—or spotted fever, as it is called out here—and having had some experience in treating this disease, I will give you my experience.

The disease is peculiar to new countries or sections where sheep roam; and I have heard the theory advanced that the poison is conveyed from the sheep through the agency of the tick. Whether this is so or not, I am not prepared to say, but I do know that the disease is not contracted every time one is bitten by a sheep-tick. Whether one attack confers immunity, I am unable to say, although I never heard of the same person having a second attack.

The disease prevails in certain localities of the same section, in the spring-time. Here, for instance, the disease occurs in the section north of the town, while no cases occur south of the town. The disease, so I am told, is very fatal in the Bitter Root country. I do not know why this is so, as in my practice I have not found it very fatal. I do not recall just how many cases I have handled, but only one ended fatally. This patient, by the way, was a Christian Scientist. I was called to make the diagnosis, as he belonged to some fraternal insurance order. He died two weeks after my call. Last spring six cases occurred in my practice, two of the victims being sheep-herders. Three of them were quite sick, running a very high temperature, but all recovered.

The symptoms are those of an infectious fever, and it is impossible to make a positive diagnosis until the characteristic spots appear. In a general way, you may, of course, hazard a guess of spotted-fever, especially if your patient has been out in the sage-brush and around where sheep have roamed. Sometimes the symptoms make you think of typhoid fever, and you may think you have a case of typhoid, until the spots appear; and then, if you never saw a case of spotted-fever, you do not know what you have on hand.

The spots are peculiar to this disease, and are very characteristic. Sometimes they are discreet; at other times, confluent. I have seen them cover the patient from head to foot. In these cases the temperature goes up high. The spots are purplish in color, very little raised above the surface, and sometimes run together like measles, and they occur on all parts of the body.

The temperature in some instances goes as high as 105° F. The mind in most cases remains clear, although one of my patients, last spring, was delirious for a week. That, however, I attributed to the fact that he had not fully recovered his strength from a previous attack of typhoid fever.

The treatment is eliminative. The old people here who are familiar with the disease will tell you to keep the patient hot, give hot drinks, and make them sweat. My treatment is: thorough elimination; the dosimetric trinity; sponging when the temperature is high; sodium sulphocarbolate; and strychnine if needed. The patient is out in from three to six weeks.

WILLIAM BOYD SECREST.

Gooding, Idaho.

SOME GERMAN PUBLICATIONS OF INTEREST TO PHYSICIANS

The study of what our forefathers thought, of how they looked upon life and its problems, and of how they approached the solution of these problems has always been an interesting one, not only in regard to the fate of nations with which history is principally concerned, but with special sciences such as medicine.

Formerly, when, in medicine as well as in other pursuits, the deference to and acceptation of authority was far more unconditional than it is now, the study of the great medical classics, notably of Hippocrates and his commentators, formed an important part of the medical curriculum; and as late as Boerhaave and his pupil and commentator Van Swieten we find the influence of Hippocratic thought and mode of observation expressed in the greater part of medical writings.

There followed the time when, in the absorption of new pursuits and discoveries, the Ancients were more or less forgotten, but even then the greatest minds always looked back and investigated what had been attempted and accomplished ere then. So the famous Kuehne edition of the Greek and Latin medical writers was called into being; and new editions of many of the notable physicians of former times were constantly prepared. The study of the Ancients and of the old became more deliberate and more definite with the careful investigations in the history of medicine, and of which Haessler's monumental work forms a milestone, which is being worthily followed, and completed especially by Neuburger and Pagel.

While treatises on the history of medicine are excellent in their way, it is always of interest to preserve, and if necessary to revive, such special writings as stand out from among the contemporaneous literature, as being of particular importance and value or as torches that have lighted the way for those following in the footsteps of the authors. It is in this manner that we have to consider the beautiful translation of Fracastor's immortal poem on syphilis—discussed by the Editor, Dr. Burdick, in CLINICAL MEDICINE for 1911, page 1217.

There are many other important contributions to medical literature that stand out as beacon-lights among the mass of contemporaneous writings, and the Sydenham Society as well as the New Sydenham Society have rescued many from oblivion by causing reproductions to be published. Quite recently the firm of Johann Ambrosius Barth, of Leipzig, has undertaken the publication of a number of such works, in a little collection which they call "Medical Classics" and which is edited by the well-known medical historian Karl Sudhoff, professor of the history of medicine at the University of Leipzig.

The writer has before him a few of the volumes that have appeared so far, and which are of particular interest in connection with the trend of medical thought and investigation during the last twenty or thirty years.

The question of why certain diseases are communicated from one person to another has occupied physicians from the beginning, although, of course, the essence and nature of the contagion remained dark. One of the earliest studies on the subject is the book bearing the title "De Contagionibus et Contagiosis Morbis et Eorum Curatione Libri Tres" and written by Hieronymus Fracastoro (1546.)[1]

Fracastor's investigations concerning the pathology of contagious diseases have assured him a place of honor in the history of medicine and his writings will continue to be read by physicians who are interested in the study of the history of their science. It shows a remarkable acumen in the reasoning of Fracastor that he recognized the nature of contagion in the vitality of specific disease-germs and that, tracing this basal cause of infection through a series of communicable diseases, he pronounced the fundamental dictum that the *seminaria morbi* [the seeds of disease] produce the same pathologic processes as those from which they themselves have been derived.

In this little work on contagions and contagious diseases, Fracastor discusses the questions: what is contagion? what are its various forms? how does it act? why are some diseases contagious and others not? Then he passes on to the various contagious diseases—fevers, smallpox, measles, "pestilential fevers," etc., discussing the nature and treatment of each contagious disease.

With regard to the treatment of contagious disease, Fracastor points out that it is very important to call the physician at the beginning of the attack and that the germs of the contagion be destroyed by appropriate remedies, because, when these are destroyed, the disease will not make further progress.

The treatment of contagious disease is twofold—protective and curative. Basing his curative treatment of contagious diseases upon their specific nature, the author insists upon the necessity of specific methods, advocating above all the destruction of the pathogenic germs by heat, cold or by those remedies which, like antidotes, possess a special destructive power. They are intended either to prevent the contagion effectively or to remove the germs from the infected humors and to prevent the development of putrefaction.

The indications for venesection, for laxative and for diaphoretic remedies, as laid down, and especially the stress placed upon a suitable diet, show the wise physician whose experiences, particularly respecting the general and local treatment of lues and the guaiac and mercurial treatment customary in his time, merit consideration to this day.

[1] *Fracastoro, Hieronymus.* Drei Buecher von den Kontagien, den kontagioesen Krankheiten und deren Behandlung. (1546.) Uebersetzt und eingeleitet von Prof. Dr. Viktor Fossel. (Price Mk. 2.80.)

Although after Fracastor many physicians investigated the nature of contagious diseases and their cause, nothing of importance was produced (even though, with the discovery of the microscope, Leuwenhoek undoubtedly saw certain bacteria) until Jacob Henle, professor of anatomy in Goettingen, published, in 1840,[2] his important treatise concerning miasmas and contagions. It is remarkable that a work like this could be written by a man hardly arrived at the age of thirty years, and it justifies the high position which Jacob Henle occupies among the anatomists and pathologists of the world.

Although Henle's treatise on miasmas and contagions does not record any personal experimental investigations, containing only deductive discussions that take into consideration all that was known at the time concerning the causes of miasmatic and contagious diseases (and that was very little), the sharp and profound reasoning of the author was such, since it enabled him to draw such far-reaching conclusions regarding the essence of contagion, that they were far ahead of the comprehension of Henle's contemporaries, and who, as a matter of course, refused to accept them, so that three decades passed before his conclusions received full vindication.

Sudhoff properly says: "If the ideas developed in this book of Henle's had become a part of the medical thought, it would hardly have been possible that later bacteriologic investigations were obliged to struggle for so many years against deficient understanding and against evident distrust. If the principle of the new doctrine had been understood, it would not have required the ingenious initiative of a Lister to transmit the theories of Henle into practice a quarter of a century after their promulgation."

It is true that in Henle's discussions there is much that is faulty, much that has been disproved, but there is far more that is true, and he shows an insight into the nature of contagion, into the essence of the infectious materia and into the parasitic nature of this infectious matter that is really remarkable. Henle understood that the infectious matter is always the same for each specific disease, and held that it represents a contagion if its direct origin from a diseased body can be shown, but otherwise it is a miasma. Of particular interest are Henle's remarks on the contagiousness of cancer and of other new formations, in which he includes tubercle.

[2] *Henle, Jakob.* Pathologische Untersuchungen von den Miasmen und Kontagien und von den miasmatisch-kontagioesen Krankheiten. (1840.) Mit Einleitung von Prof. Dr. Felix Marchand. (Price Mk. 2.40.)

The revival of Henle's work on contagions and miasmas was suitably followed by a reproduction of Robert Koch's treatise on the etiology of anthrax as based upon the evolution of the bacillus anthracis (1876),[3] the earliest work of Koch's, in which he relates the results of bacterial investigations and with which medical science entered into a new era. Koch's writings belong to current medical history and so hardly call for discussion.

It is to be hoped that the publisher will soon also reproduce Koch's beautiful treatise on the etiology of tuberculosis, which he communicated first to the Berlin Physiological Society in March, 1882, and which is buried in the "Mitteilungen aus dem Kaiserlichen Gesundheits-Amt. (1884, Vol. II.)

Another important reproduction of which the writer has received a copy is Virchow's treatise on thrombosis and embolism,[4] which, like most of Virchow's writings, has long been out of print, although it will never be out of date. From a paragraph in *The Journal of the American Medical Association* for August 10, it is learned that translations of Auenbrugger on percussion ("Inventum Novum") and of Bichat's physiological researches on life and death are announced to appear shortly. An issue of special interest to English readers is a bilingual (English-German) text of Sir Charles Bell's "Idea of a New Anatomy of the Brain" (1811), which occasioned a famous dispute about the function of the spinal-nerve roots and has become so rare in its original edition that the latter cannot now be had for love or money.

The writer has before now mentioned various books which he had received from the well-known publishing house of Curt Kabitsch, of Wuertzburg. Of particular interest are a few volumes that he has before him and which will be mentioned briefly.

Dr. P. Orlowski[5], of Berlin, is well known for his theories on male impotency, which he refers, in many cases, to an irritated or inflamed condition of the verumontanum. Although this theory has not found general acceptance, his reasons have much that is persuasive and, in the writer's opinion,

[3] *Koch, Robert.* Die Aetiologie der Milzbrandkrankheit, begruendet auf die Entwickelungsgeschichte des Bacillus Anthracis. (1876.) Eingeleitet von Dr. M. Ficker. (Price Mk. 1.80.)

[4] *Virchow, Rudolph.* Thrombose und Embolie. (1846–1856.) Eingeleitet von Prof. Rudolph Beneke. (Price Mk. 4.60.)

[5] *P. Orlowski.* Die Impotenz des Mannes. 2te Auflage. (Price Mk. 4.50.)

Orlowski's method deserves at least a careful study.

Doctors Bandelier and Roepke have, for years, occupied a permanent position among tuberculosis physicians and are well known especially for their textbook on the "Specific Diagnosis and Treatment of Tuberculosis," an earlier edition of which was reviewed in CLINICAL MEDICINE for 1910, page 713.

The sixth enlarged edition of this work[6] was published in the course of the last year and contains 296 pages, as compared with the 250 of the fourth edition. Six editions of any book in less than five years do not only indicate the popularity of the authors and the value of their book but also the importance of the subject and the far-reaching interest which it enjoys.

Since the appearance of their textbook on diagnosis and treatment, the same authors have published a more general work on the "Clinic of Tuberculosis,"[7] which they call "a manual of tuberculosis in general." Of this book, which recently appeared in its second edition, a Spanish translation has already been published and an English edition is in preparation.

With the unusual facilities of the authors for the study of everything pertaining to tuberculosis, both authors being at the head of public tuberculosis sanatoria, it is hardly necessary to point out that their opinions must carry weight. Their well-known leaning toward the use of tuberculin and other products of the tubercle bacillus naturally influences their therapeutic recommendations. Nevertheless, their views are sufficiently broad to take in those of others, although they may not agree with them.

This textbook on tuberculosis deals with the disease as it affects all the various organs of the body, notably the lungs and pleuræ, the upper air-passages, the digestive tract, the genitourinary organs, the circulatory organs, etc. It appears to be more in keeping with the requirements of the general practitioner than is the cumbrous or far more theoretical work of Cornet, and the forthcoming English translation undoubtedly will prove very popular.

The same publishers have issued a reprint from their well-known periodical, *Beitraege zur Klinik der Tuberkulose*, which contains some contributions to the chemotherapeutics of tuberculosis[8], dealing more particularly with the use of iodine, methylene-blue, and of certain preparations of copper, both in pulmonary and in external tuberculosis. The subject of this reprint will be considered in a special abstract.

Physicians who are familiar with the German language and who have the leisure to read and study will find it of immense interest and advantage to follow German medical literature. Among the most notable periodicals that are published, we may mention the *Muenchener Medizinische Wochenschrift*, the *Deutsche Medizinische Wochenschrift*, the *Berliner Klinische Wochenschrift*, the *Therapeutische Monatshefte*, the *Therapie der Gegenwart*. There are many special journals and a goodly number of excellent review journals, or, better, abstract journals, which enable the physicians to keep abreast of medical investigations. The writer, as a matter of course, will always be glad to reply to inquiries concerning such publications as readers of CLINICAL MEDICINE may be interested in.

H. J. ACHARD.

Chicago, Ill.

[6] *Bandelier und Roepke.* Lehrbuch der Spezifischen Diagnostik und Therapie der Tuberkulose. 6te erweiterte und verbesserte Auflage. (Price Mk. 6.60.)

[7] *B. Bandelier und O. Roepke.* Die Klinik der Tuberkulose. Handbuch der gesamten Tuberkulose. 2te Auflage. (Price Mk. 13.50.)

[8] *Beitraege zur Chemotherapie der Tuberkulose.* Nach den Vortraegen von Prof. Dr. Graefin von Linden, Bonn (Impftuberkulose), Prof. Dr. E. Meissen, Hohenhonnef. (Lungentuberkulose), Dr. A. Strauss, Barmen (Aeussere Tuberkulose), 1912. (Price Mk. 1.50.)

SOME NOVEL THOUGHTS ABOUT CONSTIPATION

In all of the articles published on the treatment of constipation there is one point I have yet to see mentioned, which is, the reaction of the system—whether too strongly acid or alkaline.

I have noted the systems of people suffering with chronic constipation to be considerably off from the normal body reaction, and by restoring them as nearly as possible to the normal reaction their constipation has been cured with but few laxatives.

For the busy general practitioner a quick and quite reliable means of determining the reaction is by the tongue. A clean bright-red tongue indicates an acid condition, while a pale anemic tongue with a light coat that will not come off indicates an alkaline condition of the system.

For patients presenting the bright-red tongue I prescribe dilute hydrochloric acid after meals, and between meals where required, and to patients showing an anemic tongue, with a light coating, I give sodium-bicarbonate tablets or solution, after meals.

With a cathartic to start the patient off, a regular time for going to stool, and with an occasional laxative, this condition of chronic constipation is soon overcome.

There is one precaution. The system must be watched for its reaction, since the tendency is to be excessive, one way or the other, but if we keep the condition as nearly normal as possible the constipation will not return.

James Lawson Walsh.

Boniface, Mich.

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[We are coming to realize that the "reaction" of the system really has significance, aside from gout and diabetes. Almost any form of indigestion is likely to produce constipation, which is one of the symptoms of gastric hyperacidity as well as of deficiency of the stomach-acid. Restoration to normal digestive balance helps to put things right all through the alimentary canal. But there are other factors in constipation, of course, and these must be kept in mind.—Ed.]

CARDOL, CHELIDONIUM, AND DIMETHYL SULPHATE

Will you kindly ask the fraternity, through Clinical Medicine, whether any of them has had any experience with cardol, Merck (vesicatory. See page 128, "Merck's Index" of 1907). So, also, as to chelidonium. (See page 133, same "Index".) Further, what is the action of dimethyl sulphate on callosities?

Is the action of any of these three drugs superior to that of salicylic acid, lactic acid or glacial acetic acid, and how is the action, and what changes occur in the tissues?

Is there any literature on the subject?

P. Cosman.

New Haven, Conn.

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[We request any of our readers who have used these drugs, or who have had experience in the treatment of corns and callosities, to tell us what they can about them.—Ed.]

PHARMACOLOGY OF ASPIDOSPERMINE

The title at the head of this editorial is probably unfamiliar to many of *The Review's* readers. Yet it is that of a drug whose potency in well-selected cases is so great that competent authority has termed it "the digitalis of the lungs."

From twenty years' use—or more—I can affirm that it is a sovereign palliative (not curative) for the symptom dyspnea when this is not dependent upon mechanical or toxic causes; and it is sometimes a valuable aid in the partial relief even of these latter forms of distress in breathing. Its great field, however, is asthma—in every one of the "57 varieties"—and, while occasionally one meets a case it will not help, such cases are rare.

The drug is not official, but ought to be. It has been comparatively little investigated, but such investigations as there are have been made by big men. The most recent laboratory study that I am familiar with, that of H. C. Wood Jr.—dating some five years back—confirms all that has been affirmed clinically.

Wood, who was led to his studies by clinical results observed in my hospital practice, found that aspidosperma quebracho contains several alkaloids, possessing similar, and nearly equal, powers as pure respiratory stimulants. The principal ones are aspidospermine and quebrachine.

Commercially, one may obtain aspidospermine in many more or less pure or impure forms; and some disappointments in its use may doubtless be ascribed to inferiority in the preparation. Socalled "amorphous aspidospermine" is comparatively inexpensive; but it is an uncertain mixture of uncertain residues left after the crystallization of the less impure alkaloid or its salts. The most expensive preparation—crystalline aspidospermine hydrochloride—is, after all, the cheapest, for it is the most dependable.

Whether quebrachine in pure form would be equally potent and trustworthy cannot be said, as it is not easy to obtain for clinical work.

The Pharmacopeia should presently prescribe a standard for the pure alkaloid aspidospermine and its salts—after which the other principles of quebracho may be studied to determine the question of relative superiority or availability.

The dose in asthma is from 1-10 to 1-2 grain (0.005 to 0.03 Gram) every hour or two; then less frequently as relief is manifested. An "average dose"—if there be such a thing—is 1-8 grain hourly. Physicians unfamiliar with the drug should prescribe small doses and proceed cautiously. Should there be no relief in forty-eight hours, the patient will not be benefited by longer trial.

Aspidospermine is not "curative"—either of the paroxysm or of the underlying "diathesis" or pathological condition (e. g., vasomotor ataxia or chronic bronchitis), which must, in addition, receive treatment *secundum artem;* but, as a palliative, tending to prevent recurrence of "spells" in the

night as well as to relieve constant distress, it is a most valuable adjunct to any basic plan of management.

SOLOMON SOLIS-COHEN.

Philadelphia, Pa.

[We take pleasure in reproducing this little article, which appeared editorially in *The Medical Review of Reviews* some two or three months ago. Aspidospermine is a remedy of exceeding value—*the* remedy for dyspnea. If you have not used it, let me urge you to "get acquainted" with it.—ED.]

A LETTER FROM CONSTANTINOPLE

[Knowing the interest of every reader of CLINICAL MEDICINE in the war in the East, we reproduce a portion of a letter recently received from Miss Ida Richter, who for many years was Dr. Abbott's confidential private secretary. Many of you will remember the tribute which the Doctor paid to this brave young woman and her sister Emily, now Mrs. Gardner, a missionary in Syria, in the January, 1910, number of CLINICAL MEDICINE. Soon after leaving us, Ida went to Syria to join her sister, doing what she could (and that was much) to aid the great forward movement in that country. At the breaking out of the war between Turkey and the Balkan allies she volunteered to go to Constantinople, to help the missionary workers on that field in the great crisis facing them. She reached there some weeks ago, was assigned to office work, as described in her letter below, which was written on November 4. This gives a graphic picture of conditions in Constantinople.—EDITOR.]

I am now at work again in an office—the office of Mr. Peet, the treasurer and business manager of the American missions in Turkey, and he handles the money for the British and German missionaries, too. I am in Mr. Peet's private office—the only stenographer, of course. There is a cashier (American), a bookkeeper (English), and two or three other men (native) who do running around, buying, going to the postoffice, to steamers, etc., as there are no telephones here. They say the Bell Telephone Company now has a contract to put telephones in, but if it's as slow as everything else is here, it will be a long time coming.

I suppose you are hearing all kinds of things about the war, and it really is serious, and yet the streets look as if nothing were happening, except that there is an unusual number of soldiers going and coming.

I need not tell you anything for you probably have more news than we have, as the papers here don't dare tell the truth, even if they know it, and sometimes we don't hear a thing for days; but this day we have heard all kinds of things, and even the papers don't seem to deny the fact that the enemy is very near us now—yes, at our very door.

We are in very close touch with the British and American embassies and they all seem to feel sure that we shall be safe, so far as any massacre is concerned, and the government does seem to be doing its best to keep peace in the city and quiet and order has reigned through it all; but of course one cannot tell what may happen yet.

All our men seem to feel that it will not last long—that the war will soon be over. The allies certainly seem to have things all their own way, and the Turks seem to have been on the run all the time.

The stories we have heard of lack of efficiency in men and lack of officers, food, physicians, nurses and all sorts of lack of preparation on the part of this government are simply unbelievable, and yet we know it is all too true. I am so anxious to see our papers from home. It is still too soon for reports to be in those we have seen, except *The London Times* which gets here in a few days, but soon it will be in the magazines.

Mr. Peet sent a cable to the American Board, Boston, on Saturday, assuring them that all missionaries are safe so far, and tomorrow we expect to write them another letter. It is a pretty anxious time and we shall be glad when it is all over, although even then it will be some time before things are normal. They say the British and French war vessels are now here or near, but I suppose ours will come when all is over, so if there should be great and real danger we should either have to go on board British vessels or go without protection, but we hope we won't need it.

All our people are busy helping to care for the wounded soldiers—the widows and the refugees who have come here from surrounding towns by the thousands. For a long time, indeed, up till today, they would not let any foreigners help do a thing for the soldiers; they were afraid they would find out something, but now they are letting our doctors, nurses, and others, help.

They would not let anyone come near the soldiers, not let them send a single message. Many lay on the bare floor without any attention or very little, for they have very few if any doctors and no trained nurses—except

those we train in Christian hospitals—and they would not let *them* come near their men.

I am sorry for the poor missionaries and people in the interior, like Hadjin and Adana. They will all be so excited and afraid. But so far we have had no word from any of them as to any excitement or any disturbance whatever, and I do hope that it will remain as quiet as now.

IDA RICHTER.

Constantinople, Turkey.

KEROSENE AND GASOLIN POISONING

As doctors often are called upon to treat a child who has accidentally swallowed coal-oil or gasolin, and as we find very little, if anything, in our textbooks, I wish you would tell us in CLINICAL MEDICINE whether there is a chemical or physiological antidote or antagonist for these hydrocarbons. When they are swallowed such symptoms as severe gastric pain and spasmodic coughing, choking and strangling are likely to develop, which all happen before a physician can arrive on the scene.

The parents of the child who gets the stuff often telephone to ask what they can do to relieve the symptoms until the doctor arrives. I generally can overcome the symptoms fairly well by giving anodynes and antispasmodics as occasion arises. For this purpose I have used successfully Waugh's infant's anodyne.

Let's hear from others.

H. W. GAUME.

Harper, Kan.

[Reports of poisoning by kerosene and gasolin are not very common, although the occurrence itself does not seem to be infrequent. In the September number of *The Medical World* we find a report of a case by Dr. F. H. Russell, who writes as follows:

"A baby one year old drank about one-half pint of coal-oil that her mother had in a baking-powder can to kill bedbugs. Her mother had just left the room and hearing the child fall rushed in and found the latter limp and unconscious. She grabbed the child and ran to a neighbor's house and telephoned for me. I told them over the telephone to give sweet milk. When I arrived at the house, probably half an hour after the accident, I found the child in a state of collapse, temperature below normal, and bathed in a cold perspiration, pulse weak and too rapid to count. The breathing was shallow but not slowed. The stomach was not swollen or tympanitic. Every breath was accompanied with a pitiful moan. There was no vomiting except immediately after taking the oil. I gave her strychnine and aromatic spirit of ammonia. I saw her about six hours afterward, and she was resting better. I saw her next morning, and she seemed weak, but better, and nursed good. That evening she began to have spasms and rapidly collapsed and died about thirty hours after taking the oil."

According to Leidenfrost, who has studied coal-oil poisoning at some length, in acute cases there is burning in the mouth and pharynx, nausea, and vomiting, the vomitus rarely mixed with blood; and sometimes blood and mucus in the stools, which smell of the oil; the frequency of respiration is increased, and there may be symptoms of bronchitis; cardiac action is disturbed, the pulse being feeble and irregular, while cyanosis is present and the extremities cold; the temperature occasionally is subnormal, but may be elevated; the urine may be diminished and albumin present. When the intoxication is caused by the inhalation of the oil (or gasolin) the narcotic effect is prominent; sometimes there is a certain joyousness or exhilaration like that in alcohol poisoning, then headache and vertigo; occasionally complete unconsciousness may develop.

In chronic cases, occurring among those who work in rooms filled with the vapor, there frequently are transitory attacks of weakness, vertigo, twitching of the muscles of the entire body, prickling pains and an itching eruption; in these cases the fingers may be cyanotic, the skin cold, coupled with weakness, diarrhea, and glandular enlargement. Indican has been found in the urine. The prognosis is generally good.

In fatal cases following inhalation, Leidenfrost says that death is probably due to deficiency of oxygen or to the presence of other gases. Children are less resistant than males.

On the whole, the intestinal canal is very tolerant of kerosene, or coal-oil. Readers of CLINICAL MEDICINE will recall that again and again this oil has been suggested in these columns for use in enemata to cause the breaking up and discharge of fecal accumulations in the lower bowel. We ourselves have given it many times, and many have reported its use, but we have never heard of a single accident from it. Hanes reported (*J. A. M. A.*) on his use of irrigations with refined coal-oil in amebic dysentery. He injected a quart or more at a time by way of the rectum, or, in cases of appendicostomy,

through the appendix orifice. He observed no untoward symptoms.

As to treatment, chronic cases of poisoning require nothing but removal of the source of poisoning, when they recover promptly. Flushing the bowels, to get rid of excess of oil, and mild stimulation would probably be of service.

In the acute cases, Attix (*Medical World*) says that demulcents are advisable on general principles, while charcoal should be given as an absorbent. Apomorphine should be given hypodermatically, to produce emesis, and the stomach-tube may be resorted to. There is no direct or chemical antidote, and the remedies used should be those indicated by the patient's condition.

Coal-oil poisoning is of the same general character as poisoning with the coaltar products: it is characterized by cardiac and respiratory depression, coldness of the extremities, and cyanosis. These conditions call for diffuse stimulation, with such remedies as atropine, glonoin, strychnine, or, in children, with brucine. For the relief of pain, the infant's-anodyne granule should be useful in children, since it not only sedates the pain but tends to quiet the stomach. Hot-water-bags or other artificial heat should be placed at the extremities and a mustard draught to the hypochondrium. Alcoholic stimulation may also be required.

We shall be glad to hear from those who have had experience, with further suggestions.—Ed.]

THE CANCER-PASTE, AND HOW TO USE IT

I have been gratified by the interest shown in my articles on the escharotic treatment of cancer, published in the February number of this year (page 177) and the June number (page 651) of Clinical Medicine. Many have written me for the details employed in making and applying the caustic paste. To these I have sent the following directions, which I shall be pleased to have you print for the help of other readers.

Take equal parts of zinc and flour, put on a slab and triturate with a knife (a common table-knife will answer very well) until it becomes a soft putty-like mass; then add one-sixth the bulk of cocaine hydrochloride (small crystals). Dip the ends of your fingers in flour and knead the cocaine well into the mass, using sufficient flour to make the mass homogeneous enough to stay where you want it.

The more flour you use the slower will be the caustic action of the zinc. I put it on the parts as soft as I can handle it, and thicken it with flour after I have it on. This I do by dipping the index-finger into flour and rubbing it over the mass, and then I press the flour into it.

After I have the mass on the part for eight or ten hours, I incise the necrosed tissue with a tenotomy knife deep enough to draw blood. This will indicate the depth the caustic has gone. If not deep enough, I apply it again, and in eight or ten hours make another examination, and if the depth is insufficient I apply a fresh mass. I have left the paste on for forty-eight hours in scirrhus before I cut away the dead tissue with the knife. In small cancers I do not remove the dead tissue. I can tell by inspection if I have gone deep enough with the caustic. When I think I am deep enough I poultice with flaxseed meal, or better still with a mixture of ground flaxseed and carrots, equal parts.

When the eschar comes away I examine the parts carefully, and if I find any abnormal tissue I apply another paste. I first apply absorbent cotton saturated with a 10-percent solution of cocaine and leave it on about fifteen minutes. Then I dip the zinc mass on the side that I want to come in contact with the raw surface. If cocaine is not used freely with the zinc the latter will burn like fire on a denuded surface, and no patient will stand the pain.

I have had no cases of hemorrhage, and no cases of constitutional effects from the cocaine. It appears that the zinc sears the parts so that no hemorrhage or absorption occurs. The only danger is in leaving the 10-percent solution on too long before applying the zinc paste.

This is the formula a beginner should use: Zinc chloride and pulverized sanguinaria, equal parts in bulk; potassium chlorate (a synergist) and crystals of cocaine, each one-half part in bulk. Put on a slab and triturate without water, the same as I have directed with zinc and flour, until it becomes a dark-chocolate-colored mass. Remember it will take a good deal of trituration before it will "take on" a soft mass, so you must not get weary, but keep on triturating until you succeed. Remember also what I said in my article about removing the bottom cells.

J. E. Tibbens.

Beech Creek, Pa.

[In connection with Dr. Tibbens' article, we suggest that you look up and read—*now*—

the method of making and using arsenical pastes described in the January number of 1909, page 133.—Ed.]

CONSERVATIVE TREATMENT OF DISEASED TONSILS

I am adverse to "rushing into print" at any time, but I have just been perusing Dr. Middleton's very able article in the September Clinic (page 896); and right here let me say that I admire his presentation of his subject, "diseased tonsils and adenoids," and I trust I have profited greatly from the masterly manner in which the Doctor has handled the whole matter, and particularly that section relating to "adenoids." Far be it from me to criticize or assume to sit in judgment upon an article emanating from the pen of so able and experienced an operator, and what I am about to say is meant to be simply a short chapter on the experience of a plain, everyday country doctor, and, if any of the brethren can derive but a fraction of the benefit from its perusal that I have received from reading the article by Dr. Middleton, I shall be more than gratified.

About forty years ago I myself became a sufferer from diseased tonsils, and that perhaps is one reason why I gave more than ordinary attention to the subject. At one time I seriously contemplated having my tonsils enucleated; but, "praise be," I did not. Still, it being quite a hobby with me, I took great pains to study up on the technic of the operation. I also purchased a complete outfit of the then (twenty years ago) best instruments for such work and confidently looked forward to the time when I should use them ably and with success. But those selfsame instruments to this day repose in their cases without ever having been put to use.

I may state that I am an advocate of conservatism in surgery: I never amputate an injured finger or hand if I can safely save it; yet, realizing that ultraconservatism, like the passion for operating (which, I confess, I possess in quite a degree), is a hobby which well may be ridden to dangerous lengths, I endeavor to adopt a middle course. But I am straying—I started out to tell about my experience with diseased tonsils.

I tried on my own self first—and it certainly was "fierce," to use a slang word. I reduced the inflammation, cleared up the follicles, and healed the pseudo ulcerations by the application of proper remedies (prominent among which was potassium permanganate) coupled with suitable systemic medication. Then I tapered the thing off with local applications of an aqueous solution of lead acetate (about 10 grains in 1 ounce of water) made morning and evening until all enlargement had subsided and the membranes assumed a healthy, normal color.

Result: for the past eighteen years the old trouble has not recurred; and it is not for lack of exposure to the elements, for I drive all hours of the day or night, rain or shine. We country fellows have to do it.

During these eighteen years I have followed a similar course of treatment with hundreds of patients, and never have lost a patient or a tonsil from disease of the latter; and scores of patrons around my old home (here 27 years) now rise up and call me blessed because their throats are well and they still carry their tonsils. This lead solution is an old and simple remedy and I lay claim to no special credit for introducing it; but which I can testify possesses great efficiency.

Dr. Middleton's instructions concerning adenoids I fully and heartily endorse, and I think his paper alone worth far more than the price of The Clinic for the year. Incidentally, I wish Dr. Middleton would tell us whether he meets many troublesome or any fatal cases of hemorrhage in removing tonsils.

A. D. Hurlbut.

Grand Junction, Mich.

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[At the meeting of the Congress on Hygiene and Demography several speakers advocated "massaging" of the spongy tonsils of low resistance, and which become infected on the slightest provocation. If this is done, the crypts are cleaned out and proper astringent and antiseptic medication is applied, the "carriers" usually get rid of their load of tonsil-bred bacilli, normal nutritive conditions are produced, and an operation is made unnecessary. In such cases we have also found that calcium sulphide and nuclein render excellent service.

The tonsil operation is not a simple one, nor is it free from danger, as Mackenzie has shown. The writer has been informed that there have been seven deaths following tonsillectomy right here in Chicago. That there is good reason to cultivate the preservative methods of treating chronic and recurring tonsillar inflammations there is no doubt whatever. Why will not some of our throat-specialists—readers of Clinical Medicine—outline for us, in detail, methods of treatment which will serve this purpose?—Ed.]

JUST AMONG FRIENDS

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

(*Continued from November, page 1147.*)

THESE preliminary considerations bring us to the subject proper, namely, the combination of remedies. We touch here a vexed question and a much abused art, but it has its roots deeply set in the past, and its claims upon our attention cannot be ignored. Not a few hard names have been bestowed upon the art of combination, and to the scientific man of medicine the word polypharmacy is an abomination. To him and to his followers the subject is antiquated, if not obsolete; admittedly in place in the days of the abracadabra, the incantation, the exorcism, not to be wondered at while astrology, or the search for the philosopher's stone, or the doctrine of signatures, held men's minds, but not to be tolerated from that time when Lavoisier instilled a new spirit into science and the theory of phlogiston gave way to simpler conceptions. Yet, in broad daylight, in the glare of modern science and of modern criticism, the practice of combining remedies still flourishes.

A survival such as this points to a powerful vitality, and it becomes a matter of great interest to inquire how this seeming anomaly comes to be, and how it is that men of enlightenment and of scientific training, fully conscious of the complexity of their subject, have the audacity to multiply this complexity still further by practising forms of polypharmacy. On the face of it, it is against reason. Why, then, do they persist?

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If we look into this matter, it will be borne in upon us that the art of combination with a view to cooperation is a principle that is widely applied outside the field of medicine.

Thus, if we pass from the pharmacy into the kitchen, we recognize at once that the culinary art is essentially an art of combining, and of those who are prepared to deny this art in the laboratory, how many will there be who will not suffer it gladly in the kitchen? Should it be objected that the elaborate dish and the attractive menu is not so desirable as the simple homely fare, is not this objection on grounds other than those of culinary want of success? Is it not rather a tribute to the very attractiveness and success of the cook's art, which tempts to an indulgence beyond measure and in excess of the powers of digestion? Is there anything, indeed, to show that where moderation is observed the tasty dish is less digestible than the insipid one? Is not just the opposite true?

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But this appeal of the savory meal, it is the appeal of a judicious commingling from the armamentarium of the chef. And this appeal is a direct one to certain nerves of sense—olfactory, gustatory, visual—which, by the appetite excited and by the familiar flow of saliva which attends, give evidence of the response of the digestive organs to the call.

Now, if savors and flavors may be so combined as to influence more powerfully certain nerves and nerve-centers, why, you may ask, should the medicinal virtues of plants and minerals be incapable of similar cooperation? And, if physiologically we can establish our proposition, is it not a foregone conclusion that the same will be established pathologically also, inasmuch as pathology is only physiology gone astray?

But, granting in theory the possibility of effective medicinal combination, it still remains to be proved that in practice it is feasible except for some happy chance. To this it must be answered that, since it is possible for the chef, why not for the physician, and that, allowing the important part which chance has played and may still play in the advance of the art of medicine, it is the part of the physician to observe and record those happy chances.

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But it will be said: "Think of the chemistry of the multiple prescription, what interactions, what breakings-up and recombinings; who shall say what it is that is really administered when thus we commix!" And the reply: "Think of the chemistry of the curry, and of the dinner in multiple courses, each dish a triumph of the art of com-

mingling and of blending; who shall care what it is that is really partaken when thus it commends itself as a whole!" Cells endeavor to select what they need.

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I would urge, however, that simplicity ever be the starting point and from this no departure be permitted except with a definite object in view and upon a reasonable expectation based upon observation and experiment. Count up, for instance, the active principles in opium, digitalis, cinchona, ergot, senna, and the like. Opium, for instance, contains some nineteen alkaloids besides other ingredients. True, several of these alkaloids are present in traces only, and we find that certain of the contained active principles are strongly antagonistic, the one to the other.

Thus, in opium we meet with the sedative, morphine, and the convulsant, thebaine; in calabar bean with the depressant, physostigmine, and the strychnine-like calabarine; in gelsemium, with the coniine-like body, gelseminine, and gelsemine, a tetanizer. In these combinations it can scarcely be said we have cooperation, so that, without there is some good reason to the contrary, it is better to use single active principles.

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"God said, 'I am tired of kings,
I suffer them no more;
Up to my ear the morning brings
The outrage of the poor.'"

How sublime is the appeal from monarchy to republicanism in the pitiable spectacle now witnessed in the Levant. Think of it: All Christian Europe cringing before the wiles of Moslem hatred and barbarism. A fleet compared with which the majestic Armada was but as a child's flotilla; 20,000,000 trained soldiers at command; and all Christendom to lend moral support—gathered there while thousands of Christian men, women, and children, almost within sound of the royal guns, are systematically butchered by merciless Turks.

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Breathless ado and regal flutter about a few inconsequential personages trembling in foreign embassies and alleged zeal in behalf of a handful of missionaries, while a noble, intelligent, and industrious race, owners of the soil as well as tillers of it, Christian brothers in the faith of Europe, is ruthlessly warred upon!

The august powers assembled to witness, in silent irony of Christian love and pity, the awful drama of a people's martyrdom, have pompously decreed that the disturbed area shall at some future period or under certain contingencies be subject to their jurisdiction. Their motive can scarcely be to aid suffering humanity, since, when the era of occupation shall have arrived, there will be no Christians to protect—only a charnel-house where once were smiling fields and happy homes, and everywhere a haunting cry to God for righteous redress.

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Let no one dream that these Christian majesties are imbued with human sentiment. They are here simply in obedience to the behest of cold, calculating, crafty territorial greed—the accursed imperial avarice that has for centuries drenched Europe in blood; the savage instincts that have swayed kingly heartlessness and shielded tyranny, from Attila to Bonaparte.

Away to your gilded ease, gluttonous enemies of mankind, accessories today, before, and after the fact—and may kind heaven protect her own! But know that, had your dominions of twelve hundred years' selfish possession but for a single century been *republican*, these atrocities to which you are now indifferent had never been, nor a skulking Moslem dared approach the Dardanelles or the Bosporus. Enlightened peoples are content with their own, generous and humane; enlightened monarchs are by nature and tradition incapable of magnanimity, turning ever to their selfish lust for power and territorial aggrandizement "as a dog returneth to his vomit."

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Was it King John or were it his subjects who gave to fellow men the priceless boon of Magna Charta? The end of the feast is yet far off, but it will surely come, as there broods over men the benediction of divine justice.

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Not long ago I was dining in a fashionable restaurant and became interested in watching the people. Near me sat a slight, pale lady, with a waist like a wasp. It would not have needed very long hands to clasp around that waist, and within that space not only must the stomach work, but spleen, pancreas, transverse colon, several feet of small intestine, and many large arteries, veins and other organs must all find room to perform their duties. What a double and twisted hotch-potch, seemingly! At another table near by sat a large, red-faced woman by the side of a little man. What immense shoulders and hips she had;

but her waist was nearly as small as that of the other woman.

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Do you know that women have naturally larger waists in proportion to their shoulders than men? Look at the Greek Slave, modeled by Powers. Compare that with any of the great masterpieces representing the male figure, and you will see that the female has a larger waist in proportion to the shoulders than the male. I wondered how that big woman in the restaurant could store away the large dinner she ate. No one but a woman could have done it.

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I was getting interested and looked about me. I saw a man with a red nose and a woman with an ugly eruption on her face, but both the nose and the eruption could be accounted for when I saw what they ate and drank. Soon a fine looking man came in, limping badly. I knew the cause of the limp. I have treated him for gout. He insists that the moon is responsible for his gout, since his bad attacks come on "at the full of the moon." I tell him that his stomack, from which the poison in his toe comes, is somewhat like the moon in shape, and so he may not be so wide of the truth after all. Following my fat friend came another acquaintance of mine. This man has the blues fearfully; he wishes himself dead a hundred times a day. You see, his brain must receive his supplies from his stomach. But his stomach furnishes not sweet, healthy chyme, but acids and poisonous gases. Of course his brain gets poison instead of food.

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It cannot be repeated too often nor in too many ways that the stomach is the fountain from which every part of the body is supplied. If that is sick then the brain, heart, lungs, liver, bowels, kidneys and spine must all be sick. The pain or other bad feeling may be all in one spot. It may be in the stomach itself, or it may be in the brain, or spine, or in the gouty toe. It will be felt in the weakest place. The strain is alike in all parts—every link in the chain must bear the same strain, but only the weakest one gives way.

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The restaurant was crowded and from thinking of the extravagant waste of money for food, which would sooner or later impair the health of the people there assembled, if such habits were indulged in, I thought of the terrible scenes I might witness if it were possible to look into the souls of every person present. That smiling, vivacious woman yonder, would show a soul of envy, malice, and deceit; that beautiful young lady talking to the handsome young man in the corner would show a nature as impure as a sewer; and her escort covers beneath his suave and courtly manner vices that would shame the demons of hades. The devout and charitable-looking gentleman at my right certainly has a pure and saintly nature! He is a millionaire, a director of a big trust, but he is also noted for his church work. But let us turn the x-ray upon his soul and we shall see avarice, dissimulation, hatred, envy and secret vices that walk to and from there like hyenas in a cage.

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I find but few angels in this crowd of fashionable people. There are some, but their faces are not concealed; they are unmasked, natural, and they speak to you in loving glances and tender smiles, in generous deeds and cheerful service. How few people are taken for what they really are! How few get their just deserts here on earth! But when death unmasks us all we shall then be classified according to our true worth. Dissimulation and fine attire will not serve to mask our true selves then.

INSPIRATION FROM BEYOND THE PACIFIC

As I renew my subscription for The American Journal of Clinical Medicine, I cannot forbear adding my typewriter to the "cloud of witnesses" who are sending up their praise for your journal. It contains the most newsy, practical, workable lot of information which I have found in any magazine of any kind. And you can guess that that is the kind we need out here, where we have little opportunity for consultation and much lonely work.

I was introduced to the hyoscine-morphine-cactin anesthetic by a friendly doctor while on a furlough in America, in 1907. That led me to your journal, and now to experimenting with the alkaloids. Here at our Yangtse Valley Sanitarium in Kuling, where not only many missionaries and business people come for the summer but also where we hold annual medical meets, I take pleasure in telling the other doctors of the value of alkaloids and active-principle medication in general.

Elliott I. Good.

Chuchow, China.

AMONG the BOOKS

CRANDON'S "SURGICAL AFTER-TREATMENT"

Surgical After-treatment. A Manual of the Conduct of Surgical Convalescence. By L. R. G. Crandon, A. M., M. D., and Albert Ehrenfried, A. B., M. D. Second edition, thoroughly revised. With 265 original illustrations. Philadelphia: W. B. Saunders Company. 1912. Price $6.00 net.

Only little more than one year has passed since the publication of the first edition of this important work, which was reviewed in these columns in the issue for March, 1912. In the present, second, edition Dr. Ehrenfried, to whose assistance the senior author had paid graceful tribute in the preface to the first one, has been named as co-author, and several material changes in the subject-matter have been introduced, while the text has been slightly added to.

This work has been received with the favor that it well deserved and which, we are sure, it continues to deserve at the hands of all who are engaged in surgical work.

COSGROVE'S "HISTORY OF SANITATION"

History of Sanitation. By J. J. Cosgrove. Published by The Standard Sanitary Manufacturing Company, Pittsburg.

This very interesting history of sanitation was written at the request of the Standard Sanitary Manufacturing Company, whose excellent work in sanitary plumbing is well known. The author has succeeded in presenting us with an attractive story of how the required water-supply for communities was obtained, from the beginning of history to the present, also how the refuse, the excreta and other discharges were taken care of an removed, respectively not removed, in which latter case they led to plague and pestilence.

The descriptions of the Roman baths are especially interesting, and the account of medieval darkness, in the matter of cleanliness as well as in intellectual and religious affairs, carries its own lesson and makes one thankful that he is not condemned to live in times in which cleanliness is considered a superfluity, if not worse.

Mr. Cosgrove's book shows a great amount of patient research. The results of his studies are well worth reading and will undoubtedly form the foundation for further, more ambitious textbooks.

PHYSICIAN'S VISITING LISTS

The Practitioner's Visiting List for 1913. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, $1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

The Physician's Visiting List (Lindsay and Blakiston's) contains, besides preliminary matter, a calendar (two years), table of signs, to be used in keeping records, the metric or French decimal system of weights and measures, a table for converting apothecaries' weights and measures into grams, dose-table, giving the doses of official and unofficial drugs in both the English and metric systems to correspond with the new U. S. Pharmacopeia, facts regarding asphyxia and apnea, table for calculating the period of uterogestation, incompatibility, poisoning, and a comparison of thermometers.

The visiting list, is ruled and has dated pages, with blank page opposite on which is an amount column, for entering ledger page, and ample space for special memoranda. There is also space for special records of obstetric engagements, deaths, births, addresses of patients, nurses; also, for accounts due, cash accounts and general memoranda.

Philadelphia: P. Blakiston's Son & Co. Price $1.35 to $2.50, according to arrangement.

The Medical Record Visiting List or Physician's Diary for 1913. New York: William Wood and Company. Price $1.25, $1.50, $2.00, according to arrangement, for regular lists. It contains the following: Calendar; estimation of the probable duration of pregnancy; approximate equivalents of temperature, weight, capacity, measure, etc.; maximum adult doses by the mouth in apothecaries' and decimal measures; drops in a fluid dram; solutions for subcutaneous injection; solutions in water for automixation and inhalation; miscellaneous facts; emergencies; surgical antisepsis; disinfection; dentition; table of signs; visiting list with special memoranda; consultation practice; obstetric engagements; record of obstetrical practice; record of vaccination; register of deaths; nurses' addresses; addresses of patients and others; cash account.

MOLL'S "SEXUAL LIFE OF THE CHILD."

The Sexual Life of the Child. By Dr. Albert Moll. Translated from the German, by Dr. Eden Paul. With an introduction by Edward L. Thorndike. New York: The Macmillan Company, 1912. Price $1.75.

Dr. Moll has long been known as one of the foremost investigators on this subject, for which he is unusually well qualified by his studies in hypnotism, in subconscious cerebration, etc. The reviewer has been impressed with the conservative and common-sense view of this very difficult subject, which the author expresses throughout the book. His studies on the requirements and methods of sexual education are particularly sane and deserve to be deferred to.

COWING'S "BLOOD PRESSURE"

Blood Pressure; Technique Simplified, by W. H. Cowing, M. D. Published by Taylor Instrument Companies, Rochester, N. Y. 1912.

This little manual forms an excellent guide for the observation of blood pressure readings which have come to be considered of such great importance for diagnosis and prognosis.

BOOKS RECEIVED

Manual of Clinical Pathology: Comprising the Examination of Urine, Stomach Contents, Feces, Blood, and the Serum Diagnosis of Syphilis, Tuberculosis, Typhoid Fever, etc. By Richard Weiss, M. A., Ph. D., in collaboration with George Herschell, M. D., and Andrew Charles, F. R. C. S. London: J. and A. Churchill. 1910. Pamphlet. Price 2 Shillings.

Arteriosclerosis: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment; with a Special Chapter on Blood Pressure. By Louis M. Warfield, A. B., M. D.; with an introduction by W. S. Thayer, M. D. Illustrated with 28 engravings. St. Louis: The C. V. Mosby Company. 1912. Price $2.50.

Autointoxication and Disintoxication: An Account of a New Fasting Treatment in Diabetes and Other Chronic Diseases. By Dr. G. Guelpa (Paris). Translated by F. S. Arnold, B. A., M. B. New York: The Rebman Company. 1912. Price $1.35.

Pellagra: History, Distribution, Diagnosis, Prognosis, Treatment, Etiology. By Stewart R. Roberts, S. M., M. D. With 89 special engravings and a colored frontispiece. St. Louis: The C. V. Mosby Company. 1912. Price $2.50.

Diet for the Sick. Arranged and compiled from leading authorities, with supplementary notes. By H. Edwin Lewis, M. D. New York: The American Medical Publishing Company. 1912. Price $1.00.

What to Do in Cases of Poisoning. By William Murrell, M. D., F. R. C. P. Eleventh edition. New York: Paul B. Hoeber. 1912. Price $1.00.

Massage and the Original Swedish Movements: Their Application to Various Diseases of the Body. By Kurre W. Ostrom. Seventh edition, revised and enlarged. With 115 illustrations. Philadelphia: P. Blakiston's Son & Co. 1912. Price $1.00.

Spondylotherapy. Spinal Concussion and the Application of Other Methods to the Spine in the Treatment of Disease. By Albert Abrams, A. M., M. D., F. R. M. S. Illustrated. San Francisco: The Philopolis Press. Price: Edition of 1910, $3.50; edition of 1912, $5.00.

X-Ray Diagnosis and Treatment. (Oxford Medical Publications.) A Textbook for General Practitioners and Students. By W. J. S. Bythell, B. A., M. D., and A. E. Barclay, M. D., M. R. C. S. London: Oxford University Press. 1912. Price $5.50.

Textbook on the Therapeutic Action of Light, Including the Rays, solar, and violet rays, electric-arc light and the light-cabinet. By Gorydon Eugene Rogers, M. D. With original illustrations. Published by the author. New York. 1910. Price $3.50.

Practical Electro-Therapeutics and X-Ray Therapy; With Chapters on Phototherapy, X-Ray in Eye Surgery, X-Ray in Dentistry, and the Medicolegal aspect of the X-Ray. By J. M. Martin, M. D. With 219 illustrations. St. Louis: The C. V. Mosby Company. 1912. Price $4.00.

The Technic and Results of Radium-Therapy in Malignant Disease. By M. Dominici, M. D., and A. A. Warden, M. D. London: J. and A. Churchill. 1912. Pamphlet. Price $0.75.

The Bacillus of Long Life. A manual of the preparation and souring of milk for dietary purposes, together with a historical account of the use of fermented milks, from the earliest times to the present day, and their wonderful effect in the prolonging of human existence. By Loudon M. Douglas, F. R. S. E. With 62 illustrations. New York: G. P. Putnam's Sons. 1911. Price $1.50.

Vade-Mecum of Treatment. A practical guide and index of treatment for the use of medical students and practitioners. By Edward C. Seufert, A. M., M. D., and John Stuart, B. S., M. A., M. D. Chicago: The Chicago Medical Book Company. 1911. Price $2.50.

The Physician's Formulary. Things a doctor ought to make and how to make them. Newark, N. J. The Physicians' Drug News Company. 1912. Price $2.00.

Hermann Peters: Die Neuesten Arzneimittel und Ihre Dosierung, Inklusive Serum- und Organtherapie, in Alphabetischer Reihenfolge. Sechste voellig umgearbeitete auflage. Herausgegeben von Sanitaetsrat Dr. J. Haendel. Leipzig und Wien: Franz Deuticke 1911.

Treatise on Diseases of the Hair. By George Th. Jackson, M. D., and Charles Wood McMurtry, M. D. Illustrated with 109 engravings and 10 colored plates. Philadelphia and New York: Lea & Febiger. 1912. Price $3.75.

Care of the Skin and Hair. By William Allen Pusey, A. M., M. D. New York: D. Appleton and Company. 1912.

Care of the Skin in Health. By W. Allan Jamieson, M. D., F. R. C. P. E. London: Oxford University Press. 1912. Price $1.00.

Compendium of Diseases of the Skin. Based on an analysis of thirty thousand consecutive cases. With a therapeutic formulary. By. L. Duncan Bulkley, A. M., M. D. Fifth revised edition. New York: Paul B. Hoeber, 1912. Price $2.00.

London Practitioner's Manuals: Minor Surgery. By Leonard A. Bidwell, F. R. C. S. With 88 illustrations. London: University of London Press. 1911. Price $2.00.

London Practitioners' Manuals: Anesthesia and Analgesia. By J. D. Mortimer, M. B., F. R. C. S. London: University of London Press. 1911. Price $2.00.

Manual of Surgery. By Alexis Thomson, F. R. C. S., and Alexander Miles, F. R. C. S. Second Volume. Regional Surgery. Fourth edition, revised and enlarged; with 274 illustrations. London: Henry Frowde, and Hodder & Stoughton. 1912. Price $3.50.

Manual of Surgery. By Alexis Thomson, F. R. C. S., and Alexander Miles, F. R. C. S. Third Volume: Operative Surgery. With 220 illustrations. London: Henry Frowde, and Hodder & Stoughton. 1912.

Manual of Instruction in the Principles of Prompt Aid to the Injured; including a chapter on hygiene and disinfection. By Alvah H. Doty, M. D. Designed for civil and military use. Fifth edition. New York: D. Appleton & Co. 1912. Price $1.50.

The Immediate Care of the Injured. By Albert S. Morrow, A. B., M. D. Second edition, thoroughly revised. Philadelphia: The W. B. Saunders Company. 1912. Price $2.50.

Orificial Surgery: Its Philosophy, Application and Technic. Compiled and edited by B. E. Dawson, M. D., assisted by Elizabeth H. Muncie, A. B. Grant, M. D., and H. E. Beebe, M. D. Newark, N. J.: The Physicians' Drug News. 1912. Price $5.00.

Oral Surgery: A Textbook on General Surgery and Medicine as Applied to Dentistry. By Stewart Leroy McCurdy. With 228 illustrations. New York: D. Appleton & Co. 1912. Price $3.00.

Surgical Operations. A Handbook for Students and Practitioners. By Friedrich Pels-Leusden. Authorized English translator, Faxton E. Gardner, M. D. With 668 illustrations. New York: The Rebman Company. Price $7.00.

Surgery of the Brain and Spinal Cord. Based upon personal experiences. By Fedor Krause, M. D. English adaptation by Dr. Max Thorek. Vol. II. With 94 figures in the text, 14 of which are colored, 27 colored figures and four halftone figures, on fifteen plates. New York: The Rebman Company. 1912. Price $7.00.

Handbook of the Surgery of the Kidneys. By W. Bruce Clarke, M. A., M. B. With 5 plates and 50 illustrations in the text. New York: The Oxford University Press. 1911. Price $4.00.

CONDENSED QUERIES ANSWERED

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5853.—"Goiter." Regarding Query 5853, on goiter (H. P. H., Montana), I offer my own treatment, which has never failed me in the treatment of these cases:

Locally: Fl. ext. echinacea, 2 ounces; Churchill's tincture of iodine, 4 drams; glycerin, 1 ounce; phenol, 75 percent, 40 minims. Directions: Apply night and morning with camelshair brush, but be careful not to apply to the opposite side.

Internal medication: Fl. ext. echinacea, 1 dram; water 2 (or 2 1-2) ounces; sugar, to sweeten. Label: One teaspoonful every hour. Chromium sulphate, 4-grain tablets, given 1 tablet two or three times a day. Calcidin, given 1 tablet every four hours, with a cup of hot water.

E. E. HOSMER.

Swanscott, Mass.

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ANSWER TO QUERY 5852.—"Icterus Neonatorum." This case interests me greatly, since I have had some experience with similar ones. Six weeks ago I delivered a woman of a boy baby, apparently healthy, weighing seven pounds. The mother had been troubled a good deal with gastric hyperchlorhydria and nervousness.

The child remained well for four days, then inside of two hours it turned yellow. The mother had lost two children with jaundice, both apparently healthy at birth. One of these was my case. At the time the mother was in as good health as she is now, and nursed the child. On the fourth day after delivery the child turned yellow. I gave calomel and castor oil, without avail. Nursing was stopped and modified cow's milk given because the infant apparently was suffering from a severe gastroenteritis. This child died on its tenth day.

The last child was put on modified cow's milk with about 1.75 percent cream, but on the fourth day, when the baby turned yellow, we noticed that the diet did not agree with it. I gave fennel tea as a drink. For food, I told the woman to get lean beef, chop it up, stew it in a glass container till the red color was somewhat faded, then squeeze the juice out of the meat, and give of this juice 15 to 20 drops every four hours. I also gave 1-10 grain calomel three times a day for three days. This course of procedure agreed with the child, and it is growing round and rosy-cheeked. To the tea we added some egg-albumen. The jaundice disappeared in a week.

I am inclined to think that in the first case the calomel irritated the stomach and bowels. Judging from the symptoms, there was a severe catarrhal inflammation of stomach and bowels and affecting the bile-passages. The two cases were similar to start with. Both children turned as yellow as yellow can be. At the beginning the stools had a golden color, showing that there was plenty of bile. In the last case I stopped feeding milk promptly and gave very little medicine, but fed the child on egg-albumen in fennel tea, and gave beef juice.

PETER J. WEYRENS.

Sheldon, N. D.

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[It must be remembered that a very considerable proportion of all newborn infants are icteric at birth or become so within the first three or four days. Icterus neonatotum has frequently been designated a "physiological condition," most frequently appearing on the third day after birth and continuing from seven to thirty days. This condition must not be confounded with the more severe type of jaundice, which occurs in the newborn

and is dependent upon various pathological condition, i. e., syphilitic diseases of the liver, congenital stricture or absence of duct; duodenal catarrh or septicemia, resulting from infection through the umbilical vessels (omphalitis). In this variety the skin and conjunctivæ are extensively icteric, the feces acholic (pipe-clay variety), and the urine loaded with bile-pigment.

It has been pointed out that the secretion of bile begins some time before birth, and bile-acids and bile-pigment have been discovered in the intestine of a three-months' fetus. It is not difficult, therefore, to understand how children may be born deeply jaundiced.

Icterus neonatorum of the socalled "non-pathological" variety may be due to the presence of a patulous ductus venosus which allows some of the portal blood containing bile to flow into the systemic circulation; (2) the resorption of bile caused by the diminished pressure in the portal vessels and increased tension in the hepatic capillaries, from ligature of the unbilical vein; (3) the destruction of an enormous amount of red blood-corpuscles followed by an increased amount of bile-pigment in the liver. This, the hemato-genetic theory, has been practically disproved by Racchi, of Naples, who says:

"We can scarcely believe that the red blood-corpuscles go to pieces in the blood and the products of such disintegration, floating freely about and temporarily lodged in the tissues, give rise to the yellow color. It is far more in accordance with the working of the living organism that disintegration takes place in some organ, e. g., the liver, and, if the products thereof are floating about, it is apt to pass through such organ on the way to final elimination."

The fact that icterus neonatorum appears frequently in children delivered under chloroform anesthesia is worth noting; the fetal liver being extensively affected by the drug passing through the placenta.

We do not think that calomel can in any way be charged with causing the icterus in the case described by our correspondent; in fact, small doses of calomel almost invariably prove beneficial, although, as has already been stated, ordinary hygienic measures alone are essential, the jaundice disappearing spontaneously in the course of a few days.

Simple icterus neonatorum differs from the pathological variety in that the conjunctivæ are about the natural color, urine free from bile-pigment, jaundice gradually fades from the skin, and the child throughout is comparatively well, its bowels acting normally and the stools natural colored.

The prognosis in all these cases is good. It is, of course, desirable to watch such infants carefully, and, if milk disagrees, give barley water, albumen water or, as in this case, mild raw-beef extract for a few days.—Ed.]

QUERIES

Query 5866.—"Erythema Vesiculosum." J. A. J., Illinois, asks help in the case of a woman patient, 29 years of age, weighing 172 pounds, married several years, and having no children. "This woman had measles and bronchitis when a child; also, every summer when a girl, "stomach trouble" which did not yield to treatment but would not trouble her during the winter. She had her appendix removed in 1911, and two or three weeks after returning from the hospital an eruption appeared, which has prevailed to the present time, in spite of treatment.

"These skin lesions present an irregular center which looks like the epidermis remaining after a blister has been emptied. These areas are very irregular and vary in size, but most of them are as large as a dime or a cent-piece. This lifeless-looking crater is surrounded by a zone of acute and marked redness, which also is irregular and varies in width from 1-16 to 1-2 inch, and the outer edge of the red zone is not the same distance from the outer edge of the center all the way around.

"Fresh eruptions appear from a few days to several weeks apart. For twelve to twenty-four hours before the eruption she trembles, all of her muscles being affected; is very restless, and the skin, when the eruption is about to appear, burns severely. She says this center does not fill with fluid unless she gets water on the eruption. The vesicles are very tender and pain if touched. The inflammation, after lasting for a few days to a week, or longer, gradually subsides, leaving a dry scab, which she always pulls off, showing the under tissues very red. There is continual burning during the acute stage, but no itching till after the scab forms. After the crusts come off, there is a dirty dark-brown

pigmentation, which lasts for weeks. In the bend of the elbows open ulcers appeared, but healed readily.

"At no time has she been laid up, but does her own housework and helps in the field with the general farm work. The last time seen her temperature was 99° F., and pulse was 100 at 5 p. m. An acute eruption had just appeared, consisting of probably six or eight macules over the upper left arm. Both arms and a good part of her body and legs are now covered with the pigmented spots of various degrees of pigmentation. What is it?"

Your patient, doctor, does not suffer from urticaria pigmentosa, but from erythema vesiculosum. As you will note, in the case of the herpetic type (sometimes it is difficult to distinguish between erythema vesiculosum and herpes iris) the eruption is most commonly found about the hands and wrists and lower parts of the legs.

Stelwagon states that in some cases various types of erythema occur; in extensive cases, the erythematopapular, for instance, the eruption may partake of the nature both of this disease and of urticaria. If of the vesical type, the patches often are painful, but the subjective symptoms rarely are troublesome; slight burning and itching alone being complained of. Constitutional disturbance is slight, though there is some slight elevation of temperature, and occasionally the lymphatic glands are affected. The causes are still obscure, but we agree with Stelwagon that the development of intestinal toxins is an all-important factor. Suppose you have this woman's urine examined.

We should clean out the intestines every second or third night, with repeated small doses of calomel, podophyllin and bilein, and give a saline laxative the next morning; then push the sulphocarbolates to effect; giving 10 grains in solution every three hours. Give two granules of the triple arsenates (preferably with nuclein) after meals, alternating, week and week about, with arsenic iodide. Wash the skin thoroughly with carbenzol soap, then sponge with a carbolized epsom-salt solution. Dust the affected areas with a mild antiseptic powder. Carbolized epsom-salt solution may be applied on compresses during the inflammatory stage, with good results. We surmise the urine of this patient will be highly acid and loaded with indican and skatol, while the urea output probably is about one-half the normal.

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Query 5867.—"Literature on Infant Feeding." G. N. V., Kansas, asks for literature on infant feeding. In answer, we would refer to the chapter on this subject in Candler's "Everyday Diseases of Children." Spach's "Handbook" also is extremely practical. Numerous other books on this subject are obtainable.

As you will readily understand, it is out of the question to outline any fixed scheme for feeding, one child demanding richer milk at three months than another will tolerate at nine, hence the necessity of the physician's being able to recognize and meet individual requirements. Modified milk is perhaps the safest food. There are any number of formulas for modified milk, but in the majority of cases the simplest way is the best. Secure 24-hour milk and stir well, then, to a child of 3 months or under, give one-third milk and two-thirds water, adding milk-sugar in required quantity. A child of 6 months will require from one-half to two-thirds milk and the rest barley water. At 9 months, take practically pure milk; occasionally, however, a 9-month-old child will call for the dilution used at 6 months.

Cane-sugar should never be used, and condensed milks are to be avoided. Evaporated milk, however, is an entirely different substance, the good brands, being sterile, offer an ideal food for sick children. The writer would rather feed his babies on good evaporated milk than on most of the milk sold by city dairies.

The amount of modified milk to be given at each feeding and in twenty-four hours depends upon the age and condition of the infant. An excellent table appears in Dr. Candler's book, "Everyday Diseases of Children" already alluded to.

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Query 5868.—"High Blood Pressure." J. M. F., Oklahoma, wants to know: "what is the best agent to lower the blood pressure where the manometer shows it to be too high."

Veratrine in small doses promptly reduces blood pressure; as also do glonoin and the nitrites. However, the cause of the condition should be sought for and, if possible, corrected.

It is to be remembered that glonoin acts very quickly and is more effective when taken by the mouth than when administered hypodermically. Within five minutes after the exhibition of 1-250 grain there is a profound fall in the vascular pressure, due to dilatation of the arterioles and veins of the surface of the body. The pulse is quickened and increased, rapidity being due to depression of the inhibitory center in the medulla.

Veratrine is a more powerful depressant to the circulation than aconitine. Small doses, while not materially affecting the pulse-rate, greatly reduce its force; large doses render the pulse almost indistinguishable. This drug does not, as does aconite, affect the sensory nerves. Small doses accelerate the respiratory movements.

Aconitine causes a marked slowing of the heart's action, due to stimulation of the vagus center in the medulla. It also has a direct action on the heart-muscle, increasing its irritability. The arterioles are contracted, owing to stimulation of the vasomotor center; but because of this action, occasioning a slowing of the heart, there is a decrease of blood pressure; moreover, the contractive action is to a certain extent counteracted by its primary stimulation of the cutaneous nerves, resulting in dilatation of the peripheral vessels.

You will readily grasp from the above that glonoin is the best available agent for reducing blood pressure. Sodium and potassium nitrite have to be given in full doses. They usually retard respiration.

Veratrine may be given with safety; preferably the small dose is adhered to.

Pilocarpine may also be regarded as a depressant. It is frequently of service in congested conditions, and may be given in alternation with veratrine.

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Query 5869.—"Treatment of Tic." R. M., New Jersey, is treating a patient fifty-eight years old, a professional gentleman, who has been suffering intensely with tic douloureux. He has tried a number of the most "reliable remedies" of the old school without results. He now would like to try the "indicated alkalloids" and asks us to outline our favorite procedure in such cases.

Before we can make intelligent suggestions, we must have a clearer idea of conditions present in this particular case. Alcoholic and osmic-acid injections sometimes prove effective, but as often fail. In obstinate neuralgias, all medicinal treatment sometimes proves inefficacious, and surgical procedures—section of the nerve or extirpation of gasserean ganglion—may be the only resort.

Tic is to be sharply distinguished from other neuralgias. For instance, it begins almost always in middle or later life, and is characterized by pain, frequently starting in the upper lip or side of the nose, at times flashing upward along the nerve or radiating outward from a central point. The pain is of extreme severity, lasting usually a minute or two and disappearing as abruptly as it came.

During an attack the affected side of the patient's face is flushed, twitching of the muscles occurs, and there may be lacrimation, salivation, and discharge of serum from the nose. If, as we believe, tic is due to degenerative changes in the gasserean ganglion, the latter should be extirpated; in which case the peripheral operation may be tried first.

Aconitine and gelseminine pushed to physiologic effect have given the best results in our hands. Neuro-lecithin and calx iodata should be taken for several weeks, a morning dose of saline laxative should also be ordered. During this treatment the galvanic current may be applied with advantage. If such procedures do not avail, operation should be urged, though a great deal depends upon the age and systemic condition of the affected individual.

We cannot in any way endorse alcohol injections and do not believe that experienced physicians anywhere recommend the procedure.

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Query 5870.—"Palmar Abscess." L. P. E., Nebraska, wishes to know how a palmar abscess can be aborted. He says that a neighbor frequently recommends "fat pork," which is applied for twenty-four hours; another will advise "salt and sugar," and with this twenty-four hours more are wasted. When the patient finally comes to the doctor his whole hand is hot and swollen and the pain severe. The doctor wishes to know if there must be a free incision (which most patients object to) before pus has formed? "Is there any kind of application which, used early, will abort the trouble?" the doctor asks.

All acute abscesses should be incised, incision being deep enough to expose the cavity freely. It makes no difference whether the abscess is in the palmar region or elsewhere, it is necessary to evacuate the pus at once. There is no use in making an incision unless infection of the deeper tissues has occurred.

A felon, as you are aware, often leads to the formation of a palmar abscess, the latter condition being practically an extension of the digital infection. The primary infection may be superficial or deep, or deep and superficial. For instance, a patient has pricked her finger with a carpet-tack or a splinter, and the little wound apparently heals up, but bacteria have entered, and after a few days the end of the finger becomes red, the skin tense, and throbbing is complained of.

There is not at this time any great collection of pus, and we tie a rubber band about the base of the finger and inject a few drops of cocaine solution over each lateral nerve; then, with scissors, trim off the little blistered area over the site of puncture. We shall have before us a red-mottled surface, looking like a granulating area. Superficial seropus has been evacuated, but, if the finger is squeezed gently, a minute drop of pus will be observed to exude slowly from some point in the granulation. We now know that this little track communicates with a deep cavity, and that we have to deal with a combined condition; that is, two pus-producing areas, one above the other. Occasionally there are two or more communication channels. In order to cure, we must clean out the upper chamber. Usually at the base is the periosteum, and from here, as you are aware, infection rapidly extends until we may have extensive palmar abscesses, but things are materially simplified when the initial lesion is the palm, and this area alone, is involved.

The skin on the palm of the hand is calloused and these callosities often continuously press upon the soft underlying structures and irritate them. Finally a break in the continuity of the skin occurs and infection of the underlying tissues is set up. Unfortunately, by the time redness and swelling have occurred even the most potent antiseptics applied locally will be unable to act upon the affected tissues; therefore, it is essential to get through the occluding skin, permitting the escape of the discharge.

It is well to remember that extensive suppuration of the hand may occur, therefore early incision is necessary, and, since few other regions of the body contain so many and such diverse structures, we must proceed cautiously. Crippling will inevitably follow a wrongly placed incision, and, yet, to reach the burrowing pus, we must open up freely.

The old plan was to make short multiple incisions parallel to the bones, in this way avoiding the delicate structures of the hand. Such incisions often serve, but almost as frequently miss some of the pus pockets, while they are apt to heal too quickly, thus necessitating a second operation. Not infrequently, moreover, the resultant scars seriously limit motion.

Dr. W. A. Brooks recently devised a semicircular incision, the point of the knife being entered over the second metacarpophalangeal joint, sweeping around the palm and coming out at the base of the thenar eminence; the flap thus formed should be dissected and then turned back on the thumb. Pus will be observed oozing through the palmar fascia at various points. Enlarge the openings with blunt scissors and clean out all the cavities. By this procedure all important arteries, nerves and tendons have been avoided and burrowing pus located and removed positively.

As a final procedure, the entire hand is disinfected. Wicks of gauze are placed in all the pockets and a thin layer of borated or bismuth-thymol-iodide gauze spread over the surface. Twenty-four hours later the skin flap may be turned aside and the depths of the wound explored. In forty-eight hours, as a rule, the wicks can be removed, and by the end of the week the under-surface and flap will be covered with healthy granulations. Skin should then be stitched back into place, when rapid healing may be looked for.

This sounds like an extensive and serious operation, but when one remembers the fearful deformity and crippling which may follow palmar abscess a thoroughgoing and effective operation of this kind is infinitely preferable to multitudinous and uncertain incisions.

Nothing, perhaps, proves more beneficial than moist creolin dressings and a splint. A surgeon should be able to arrest the process. It may be necessary only to disinfect the hand thoroughly. The usual procedures are to open up the wound, being quite sure that it *is* opened up its entire extent and that no pus-burrows are left undiscovered, and to apply pure carbolic acid or oil of turpentine freely. If carbolic acid is used, it should be neutralized in one minute with pure alcohol. Copious antiseptic-oil dressings should then be applied. The fingers should be extended and the hand kept open by the application of a splint.

Briefly, then, infection may be prevented by prompt and thorough use of antiseptics on a mildly occlusive dressing; but once suppuration of the deeper structures is involved, radical measures are necessary, and in the majority of cases the operation just described in detail proves most satisfactory.

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Query 5871.—"Convulsive Tic." F. M., Kansas, desires the best remedies for twitching of the muscle of left side of face, the eye and mouth almost continually moving.

Convulsive tic (habit-spasm) frequently proves rebellious to treatment; other times it readily yields to a course of zinc phosphate, solanine, and neuro-lecithin.

Of course, it is impossible to select the "best remedies" until one is thoroughly familiar with conditions, generally. As a rule

the disease appears in childhood, frequently being observed in girls from seven to fourteen years old. In the simplest form there is a sudden quick contraction of the facial muscles, drawing of the mouth to one side, winking of one eye or a sudden quick shake of the head and movement of the neck-muscles. Not infrequently one shoulder may be elevated. The movements are repeated at intervals and aggravated by motion.

Almost invariably there is some constitutional disorder, and the writer has observed habit-spasm in children who have grown too rapidly, especially where there is an inherited tendency to neurotic disorders.

It is desirable in every case to examine the nose, pharynx, and throat thoroughly, and the eyes should be tested. In one instance dilatation of the sphincter ani caused prompt disappearance of the tic.

Intestinal parasites sometimes produce the disorder. It is not difficult, as a rule, to differentiate convulsive tic from chorea, in which there are not only irregular movements, but disturbance of speech and, later, mental impairment. Huntington's chorea unfortunately is fairly common in this country and frequently presents in middle life. If you will make a thorough examination of your patient and give us a clear clinical picture, it will give us pleasure to outline a treatment which, we hope, may prove effective.

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Query 5872.—"Periodic Hematuria." W. P. T., Illinois, forwards a specimen of urine, together with somewhat limited clinical data, and asks us to make a diagnosis. His patient, a woman, has had periodical hematuria for the past seventeen years. Sometimes the condition would not appear for two or three years, but she seldom has gone over one year without at least one attack.

Pain may or may not accompany the hematuria, which has lasted as long as fifteen to seventeen days at times; the present time it has persisted eight days and cannot be checked; oil of turpentine, stypticin, ergotin, hydrastine, tannic acid, urotropin, extract of witch-hazel, and other remedies have been pushed, but without effect. Pain, which begins in the right kidney and radiates to the ureter and vulva, is very sharp in character. There is more or less tenderness over the right kidney all the time. The patient passes large clots about the size of a lead-pencil and sometimes 2 1-2 to 3 inches long (probably formed in the ureter). She suffers intensely until the clot passes. At times large flakes, white and glistening, and spongy in character, are passed during urination. No calculi or sand have been found in the strained urine. The kidney cannot be palpated. There is no tenderness where the ureter crosses the brim of the pelvis. The patient shows no cachexia. Amount of urine voided is practically normal.

The bladder is being irrigated once daily, during the present attack, with boric-acid solution, until the water comes away clear, the irrigation causing no pain or discomfort. The patient has been kept quiet, is on restricted liquid diet, and the bowels are regularly well cleaned out, and the intestinal antiseptic of sulphocarbolates are given steadily to keep them clean. The patient has fairly good appetite; color of skin is fair. Pulse and temperature are in proper ratio. The temperature has never risen above 100.4° F.

To begin with, the determination of the source of blood in the urine is sometimes difficult, as is well understood. When of renal origin, the blood usually is intimately mixed with the urine; the red cells usually are decolorized; the blood casts also are found. When the blood issues from the pelvis or the ureter, coagula, corresponding in shape to these cavities, may be voided. When the hemorrhage is from the bladder, the blood and urine are not blended, and the clots may be of an irregular form and of large size; the individual cells retain their normal appearance.

The symptoms in this case point to the presence of a calculus in the renal pelvis or upper ureter, although it is just possible that thrombosis of the renal vein or aneurism of the artery exists. Occasionally renal hemorrhage occurs without apparent cause, socalled "renal epistaxis," or "hemophilia." Such hemorrhages are observed in neurasthenic or hysterical individuals, as a rule. The cystoscope should be used here, and we strongly urge to have such an examination made at once. It may be necessary to extirpate the right kidney.

The urine (now alkaline) must be rendered normally acid. Formin and arbutin usually prove beneficial, but, if a calculus of irregular form exists in the pelvis and from time to time a portion thereof enters the ureter, causing urethral hemorrhage, no drug could be of material service.

It might be well to have radiographs made. We are inclined to think that the vesical mucosa is involved. It is a pity that the large white glistening flakes were not examined.

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Oxydendron Arboreum (Sour Wood)
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Eliminates Effused Serum

Controls heart action and restores physiological balance between arterial and venous systems.

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Trial quantity and literature on request *to physicians only.*

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Business and News Notes

THE dietetic and medicinal value of the juice of the grape fruit is now almost universally recognized. Physicians are not only large users of it themselves, but are constantly recommending and prescribing it to their friends and patients. For the increasing consumption of this useful product great credit is due to Mr. Kimball C. Atwood, president of the Atwood Grape Fruit Co., of New York City, who has made a very careful study of the subject, and has succeeded in growing such a superior article that a demand was easily created by an intelligent educational campaign upon its food and therapeutic value.

NOTHING is more annoying to both surgeon and patient than ineffectual or bunglesome attempts to pass a sound or a bougie. The doctor sweats and gets rattled, and the patient thinks thoughts (even if he doesn't speak words) that are anything but complimentary to the doctor. On the other hand, nothing establishes confidence in, and satisfaction with, the doctor like the smooth, easy, painless passing of these instruments. This desirable state of affairs is greatly facilitated by the use of an appropriate lubricant, like Lubraseptic, which is not only of a "just-rite" consistency, but, because of its admixture with formaldehyde and boric acid, acts as an efficient antiseptic. Being non-greasy, it is also soluble in water—which is a distinct advantage. Get a sample tube from the Russell Lubraseptic Co., of Tarrytown, N. Y., and try it!

WE HAVE long been using the same local applications for catarrhal and inflammatory conditions of the mucous membrane of the genito-urinary and respiratory tracts—our silver nitrate, and iodine, and argyriol, and zinc sulphate solutions. By the same token, it is rational that the same systemic antiseptics which have proven efficacious in the treatment of genitourinary infections should be equally applicable to infections of the respiratory tract. Cystogen, which has long been recognized as a urinary antiseptic, is now being successfully used in rhinitis, bronchitis, and other similar conditions, in which it relieves the pain and congestion, reduces excessive secretion, and lessens the possibilities of complications. That it reaches the spot is shown by the excretion of the drug in the patient's sputum.

WE HAVE already paid our respects to G. Frank Lydston's book on Sex Hygiene. We are glad to see our opinion of it shared by so competent a critic as Judge Ben B. Lindsey, of Denver. Judge Lindsey says, "I consider the author one of the most competent, if not the most competent, authority in America on the subject of which the book treats. As for social questions, Dr. Lydston has shown in his great work, 'Diseases of Society,' that no one is more able to discuss such questions." To all of which we say Amen, and recommend our readers not only to procure a copy themselves, but to recommend it to their clientele. It ought to be put in the hands of every adult and

In catarrhal endometritis cervical catarrh and gonorrheal vaginitis

Airol 'Roche' is promptly, positively and strikingly beneficial, because it exercises energetic iodine action, and iodine is lauded as a germicide with which no other can compare.

On contact with the secretions Airol 'Roche' slowly releases its iodine (contains 20 %), in 'statu nascendi,' together with bismuth subgallate, thus exhibiting

Rare antiseptic, astringent and siccative properties

Absolutely odorless in itself, non-irritating and non-toxic, it limits and deodorizes secretions. You would find it extremely useful.

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Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated, a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution, Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

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adolescent. It costs only $2.25, and is to be had of the Riverton Press, 626 South Clark St., Chicago. It is well worth the money.

"For practical hints and substantial assistance, CLINICAL MEDICINE surpasses everything that I have seen in its line, and I have been taking three to four medical journals regularly for forty-five years."—E. J. THURMAN, M. D., St. Louis, Mo.

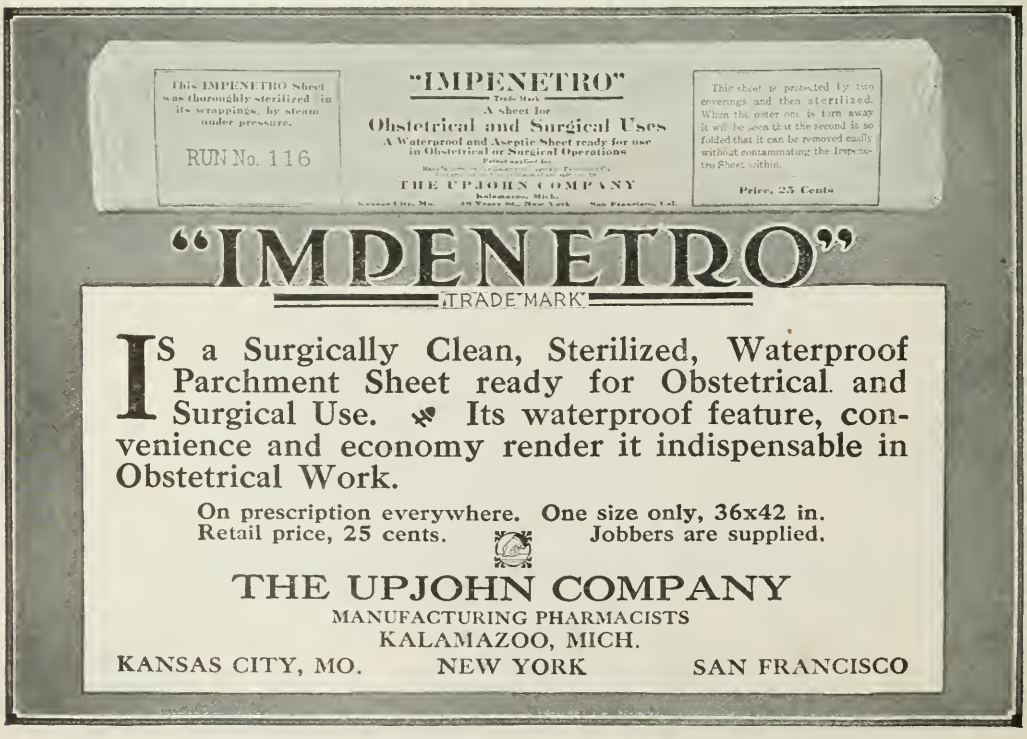
MESSRS. BATTLE AND COMPANY are still furnishing the profession with their artistic and exceedingly useful medical and surgical charts. The latest addition to the series is a set of obstetrical charts, done in colors, including a chart of the pelvic and fetal diameters, and an illustration of all the various forms of presentation. These charts make a first rate hanging for the walls of a doctor's office, where they are both ornamental and ready for reference in case of need. All you have to do to secure the set is to send 25 cents and your request to the Battle Company, St. Louis, Mo., and it will be mailed to you postpaid in book form.

WHEN you have to give digitalis to control the compensation of the heart, there is no better form in which to use it than Digipoten. Dr. Alben Young, a prominent Chicago physician, reports that he has used it for several months and finds the very best digitalis preparation he has ever used. A good dose, night and morning, allowing each dose plenty of time to get in its work, gives prompt, marked and positive results, just the effect you want to produce. Dr. Young says he has a number of heart patients who feel that they couldn't live if they didn't have the little green tablets.

IN THE November number of *The Medical Standard* we find one of the most interesting Round Table symposiums on anesthesia. We note that it is to be continued in the next issue, and that in a succeeding number the different local anesthetics, and the right way of using them, will be considered. Why not send 25 cents for three successive numbers—or better still, subscribe. A dollar pays for the *Standard*, which is published in Chicago.

DR. J. JOSEPHSCHEN, of Berlin, reports several cases of gonorrhea in the male in which Santyl was used from the first day of treatment, no local measures being used for the first four or five days, so as to avoid possible complications from unskilful manipulations, and also for the purpose of determining the value of the drug. The results, according to Dr. Josephschen, were uniformly good, the majority of cases showing immediate and progressive improvement, and the attack being limited to anterior urethritis. In four cases of posterior urethritis in which Santyl was used the results were equally satisfactory, both subjective and objective symptoms clearing up rapidly. Any drug that controls this bothersome disease is a welcome addition to the practitioner's armamentarium.

WE ARE told that the sales of Storm binders in the United States, Canada and Mexico, exceed those of any other make of binder. We congratulate the manufacturers upon this fine showing, which is but a well-deserved tribute to its excellent qualities. We have yet to hear of the first case of dissatisfaction with the Storm binder. Those who wear them are always grateful—physically and mentally.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that vast army of those who call on their Doctor, complaining of the various well-known symptoms of caffeine-poisoning, frequently cause the Doctor no end of annoyance, unless he **insist,** at the start, that the patient quit coffee and tea.

Even if the Doctor follows safe procedure and interdict coffee and tea, it is often difficult to secure obedience.

It is comparatively easy when the new

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is prescribed.

It is regular Postum in concentrated, powder form—nothing added—no boiling required. Place a level teaspoonful in cup, pour on hot water and stir until dissolved; then add sugar to taste, and enough cream to bring the color to golden brown.

Postum, now well established among the medical profession, as well as the laity, is the easy, agreeable and **successful** means at the physician's command (in connection with his well-chosen remedies and potent suggestion) of relieving this large class of patients.

Regular Postum and Instant Postum contain **no coffee** or other drug substance. It is made of clean, hard wheat and a small per cent of molasses. When properly served it is pleasant and wholesome.

Criticism and report of clinical experience are invited.

The *Clinical Record,* for Physician's bedside use, will be sent, prepaid, to any Physician or Nurse who has not already received one. Also a box of samples of Instant Postum, Grape-Nuts and Post Toasties.

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"As a medical journal, yours has from its existence been forward in advancing along lines of modern medicine. It has grown from a *small* uninfluential publication of a few good and many indifferent contributors, to one of the, if not the foremost practicians' journals of America and your contributors are second to none." —J. L. Fleming, B. S., M. D., Village, Arkansas.

Creosote is coming into its own again. This valuable drug, which for several years has been practically laid on the shelf, because of its disturbing effect on digestion—albeit we have been eyeing it wistfully all the time and wishing we could use it—has been robbed of its terror by the simple expedient of combining it with lime. Now as high as 120 minims of creosote per day is reported to have been given without upsetting the stomach in the least, through the medium of Calcreose, a preparation of creosote and lime put up by the Maltbie Chemical Company.

"In winter, and late fall, and early spring, when the weather is changeable, have Calcidin with you, or near you, ready for use at a moment's notice," advises a physician who has a large practice and uses it right along. In croup and other winter diseases that try both doctor and patient, it is the master-remedy. Thanks to it, even true croup is no longer the terror it once was, while as to the spasmodic variety—it is to laugh.

Those of our readers who require efficient supportive or corrective appliances for their patients would do well to write to the Ambulatory Pneumatic Splint Co., 508 Atlas Building, Chicago. This company distributes, gratis, a handsome catalog that is of real help to the busy doctor in his work.

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An ethical emulsion of cod-liver oil without medicinal admixture.

The manner in which the purest and freshest cod-liver oil is emulsified in Hydroleine, makes it easily digestible. Furthermore, Hydroleine does not offend the taste. Its nutty and distinctive flavor is liked by the most delicate palate, and children take it willingly.

In practice it is markedly utilizable, and is reliably stable. It is effective as a food-fat and possesses superior characteristics.

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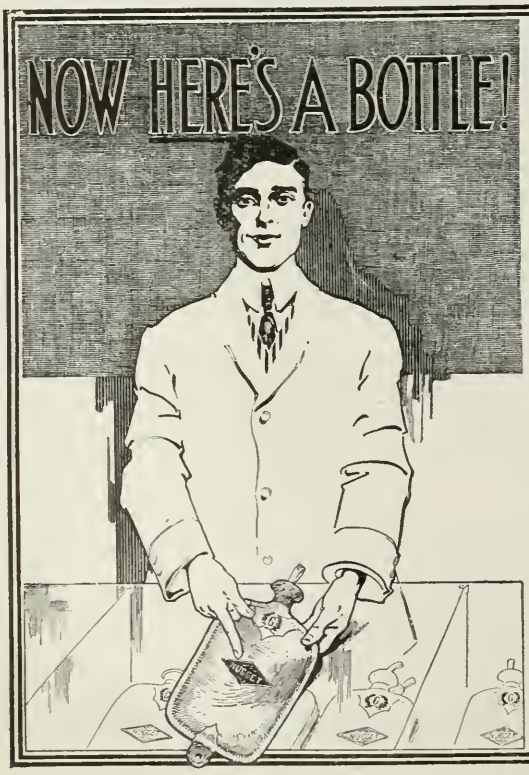

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The Journal "American Medicine" says: "Realizing the great value of grape fruit, the medical profession have long advocated its daily use, but it has only been within the past few years that the extraordinary curative virtues of this 'king of fruits' have been appreciated. This dates from the introduction of the ATWOOD GRAPE FRUIT, *a kind that so far surpasses the ordinary grape fruit that no comparison can be made.*"

Says E. E. Keeler, M.D., in the "Good Health Clinic": "In all cases where there is the 'uric acid diathesis' you will see an immediate improvement following the use of grape fruit."

If you desire, your grocer or fruit dealer will furnish the ATWOOD Brand in either bright or bronze. It may be procured at first-class hotels, restaurants and clubs. Ask for ATWOOD Brand. For home use buy it by the box; it will keep for weeks and improve.

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TWENTY-TWO medical colleges in America will henceforth be barred from New York, on account of failure to comply with the requirements of the Regents. It behooves the student to ascertain whether the college he attends is on this list. This can be done by applying to the Regents at Albany, N. Y.

TUBERCULOSIS is a disease of the house, and affects the sedentary; yet the Jew is notably free from this malady, although the most sedentary of races. He is a resident of the city, his lung capacity is small, his occupations are the worst that can be devised for the lungs, and his family swarms; and yet the Jewish child is less than half as likely to become tuberculous as his Christian playmate, says Knapp. The explanation is that by centuries of such a life the race has acquired immunity.

IN THOSE diseases which either drain or impair the hemoglobin of the blood it is an important part of treatment to furnish an oxygen carrier. Dr. William Franklin Harpel, of New York, reports remarkable success in the treatment of tuberculosis with vanadium on this principle. Vanadiol is a derivative of this metal, and is indicated, for the same purpose, not only in tuberculosis, but also in anemia, chlorosis, neurasthenia, diabetes, Bright's disease, pneumonia, and all other conditions where the oxygen-carrying power of the blood is diminished.

THE Nobel prize for research in medicine has been awarded this year to Dr. Alexis Carrel, of the Rockefeller Institute. While Dr. Carrel is a Frenchman by birth, the great work which won him the prize was done on American soil. Readers of CLINICAL MEDICINE will recall something of his achievements—his wonderful success in preserving the body tissues and grafting them upon different portions of the human body. Work of this kind is not merely curious—it is intensely practical and promises to extend the scope and increase the marvels of the surgeon. We extend our congratulations to Dr. Carrel. America is beginning to "climb" in science as she has in other more material things.

IF YOU wish to become familiar with physiologic therapeutics (and every physician should) you can not do better than take one of the short courses offered by our friend, Dr. Max J. Walter, at The Pennsylvania Orthopedic Institute and School of Mechano-Therapy, 1709–1711 Green St., Philadelphia. A four weeks' course has been provided, covering electrotherapy, hydrotherapy, thermotherapy, massage, medical gymnastics, etc. The institution is beautifully equipped. Ask Dr. Walter to tell you about it, and also tell him that you want to see a copy of the *Philadelphia Journal of Physiological Therapeutics*, of which he is the editor.

VARICOSE ulcers have always been the bête noire of the physician. For years no satisfactory treatment has been available, other than excision of the offending veins themselves. We are told that they are readily and effectively cured with Varicocene, alone and unassisted, to the exclusion of all other treatment.

NOT so many years ago practically all of the correspondence coming to THE AMERICAN JOURNAL OF CLINICAL MEDICINE was written with the pen. But within the past two or three years there has been a change, and now fully half these letters are neatly typewritten, meaning great saving of labor, both for writer and for reader, and a large reduction in the

During Convalescence Suchard's Invigorating Cocoa

Following childbirth or the acute diseases such as pneumonia, typhoid fever and the like, Suchard's Cocoa affords a most convenient and effective means of increasing the nourishment. Deliciously appetizing, it is not only acceptable to the most rebellious or fastidious patient, promptly relieving the faintness and craving incident to convalescence, but owing to its nutritive properties it rapidly promotes the reconstructive process.

Many physicians are familiar with the dietetic value of Suchard's Cocoa and have long been availing themselves of its unique advantages as a delectable food beverage. Those who are not can secure a *full quarter pound package by sending 10 cents to defray postage.*

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WASH AND BE CLEAN

An excellent authority makes the following statement "There is no doubt that persons who consider themselves clean, are far from being so in a surgical sense, because they do not bathe frequently enough, or they do not bathe properly, or they do not wash with a soap that will clean the skin properly."

In the preparation of the patient for an operation the skin of the whole body should be rendered active by daily cleansing for as long a period as possible before the operation. This in addition to the preparation of the skin for incision will have a marked effect upon the general health of the patient, for rendering the skin active and making it perform its functions of elimination properly relieves the other excretory organs. A healthy activity of the skin is essential also for the surgeon himself and his assistants, including nurses.

A daily cleansing bath is important for surgeons, assistants and nurses.

Synol Soap should be used for these baths.

Synol Soap possesses the power of cleansing any surface by loosening and dissolving the epithelial scales and the oil of perspiration in a manner not possible with any other form of soap.

After a bath with Synol the skin is soft, smooth and not sticky, as after the use of other soaps, and any dead skin can be rubbed off.

Let us send you a sample of Synol Soap with literature.

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possibility of error. One of the things that has brought about this change is the special attention given physicians' requirements by manufacturers of typewriters, as in the case of the "Medical Model," which contains all the characters used in writing prescriptions.

JOSEPH W. GREGORY. M. D., of Cisco, Texas, writes: "I am enclosing you a year's subscription to CLINICAL MEDICINE, the best and most helpful medical periodical that comes to my desk. I don't see how a good live doctor can do without it. It's the next thing to a course of lectures in some of our good post-graduate schools.

SUNLIGHT, the best germicide known to medicine, costs nothing. Cold, fresh air, the best tonic in the world. is free to all. Only the house mollycoddles need blood purifiers in the spring. No one ever caught coryza or pneumonia out in the open. They are house infections. No more domesticated germ exists than the pneumococcus.—WILLIAM BRADY, *New York Med. Jour., Mar. 18th.*

"CLINICAL MEDICINE is a great help to the busy doctor. Many of the subjects are short and to the point, thereby saving time, and the longer pieces are interesting and full of meat."—W. W. LASLEY, M. D., Lewisburg, Ky.

DRS. JEREMIAH METZGER and Samuel H. Watson, both graduates of Rush Medical College, both good men of wide experience, are associated in the medical directorship of the Tucson-Arizona Sanatorium for diseases of the lungs and throat. This institution is one of the best equipped of the kind in this country. It is located in a climate which is ideal for the treatment of consumptives and is managed by men who know their business and know tuberculosis. Not only have they both treated the disease with fine success, but they both have had the disease, personally, and are therefore in a position to sympathize with the patient in all his problems.

A PURE, delicious cocoa is one of the most agreeable, as well as most effective, ways of getting nourishment, in an easily digested form, into the sick, the convales-

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Has 3 blades of finest quality, file tested; selected pearl handle, German silver back and ends; price in case, $1.50, postpaid. Same knife, 2 blades, $1; ivory handle, 2 blades, 75c; 3 blades, $1. Lady's 2 blade pearl, 65c and $1; lady's ivory 2 blade, 50c. Boy's 2 blade, 50c. *STEEL SHEARS*, 7 inch, 60c. Send for 80-page Free List and

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Every B & B product marks the very last word in science, in cleanliness, and in convenience.

These facts are known to thousands. Let us make them known to you.

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We publish pamphlets and circulars on various lines which will prove of great interest to any physician. Among them are these:

Plaster Paris Bandages

A book of authentic, up-to-date information, based on data secured through a series of tests made by surgeons collaborating with our Scientific Department.

It illustrates the use of plaster paris bandages in making splints, and tells how we make the bandages right.

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Dealing with every kind of sterile Ligatures and Sutures, put up in all the convenient ways which surgeons have suggested.

It deals with the past and present, to show the advancements of the last few years.

Adhesive Plaster

On the technique of application, and indications for its use. Illustrated by photographs of recent clinical cases.

Formaldehyde Fumigators

Dealing with the how and why of formaldehyde fumigation, the standard requirements for various rooms. And showing why B & B Fumigators are the best and most convenient form of aerial disinfection.

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Showing why this suspensory, for 20 years, has been standard with physicians. And why it is prescribed above all others, by fully ten to one.

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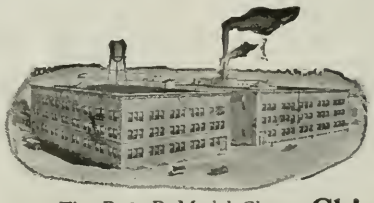

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cent, and the debilitated from any cause. The number of persons who cannot accept and digest cocoa is exceedingly few; and those who are able to take it almost always enjoy it very much. But, like every nutritious delicacy, its toothsomeness and its food value depend upon the quality and preparation of the article. Poor, coarse cocoa is as disagreeable as rich, fine cocoa is delicious. Therefore, in recommending your patients or families to drink cocoa, do not simply say "cocoa" and let it go at that, but specify a make of cocoa which you know to be pure and nutritious. Suchard's cocoa fulfils all these requirements. The report of the laboratories of the London *Lancet* endorses this brand as being of the purest quality—in fact, it states, there is no better or more convenient variety on the market.

"Clinical Medicine is my favorite of all the medical journals."—Chas. F. Anderson, M. D., Lexington, Kentucky.

The Hartford Suspension Co. is rapidly bringing to completion its new eight-story factory, in anticipation of a big market for their new invention in the way of a self starter and lighter for automobiles. This feature of the automobile has for a long time been a vexed subject. Owners of machines have been clamoring for such a device, and manufacturers have been trying to fill the demand, but with indifferent success. None of the devices put out by them seemed to be satisfactory. The Hartford people appear to have succeeded in devising a method which fills the bill and avoids all objections, and we understand that many of the standard car makers, including Studebaker, Lozier, Chalmers, Hudson, Packard, Krit, and others, will equip their 1914 machines with this device.

In the treatment of inflamed mucous membranes, Fitchmul is very successful. The manufacturer makes a very liberal offer by which our readers can become acquainted with this preparation at reduced rates, in his advertisement on another page of this issue.

The ambulatory treatment of fractures has so many manifest advantages that the only obstacle to its general employment has hitherto been the lack of a proper apparatus for carrying it out in an efficient and comfortable manner.

The Ambulatory Pneumatic Splint, manufactured by the Ambulatory Pneumatic Splint Co., 35 East Randolph Street, Chicago, Ill., fully meets all of the requirements and does away with the disadvantages of the older, cumbersome, disagreeable and inconvenient methods. Under its use the patient need no longer be confined to the bed or couch and thus deprived of the benefits of fresh air and excercise and their important influence in promoting bodily nutrition, and thereby accelerating the reparative processes. Its use prevents muscular atrophy, ankylosis and deformity.

The Ambulatory Pneumatic Splint is a fracture-setting instrument for reduction, bed or walking treatment of the hip, thigh, patella, leg or ankle fractures, cases of non-union, dislocations, sprains, knee or hip-joint disease.

Its use assists the doctor in securing for his patient good bone union, comfort, strength, and health in the easiest and best possible manner.

The Ambulatory Pneumatic Splint Manufacturing Company, Chicago, are experts in the manufacture of corrective and supportive appliances. They use only the best of materials in the making of Braces, Artificial Limbs, Trusses, Elastic Stockings, etc.

The inspiration of the laboratory is made practical for the practicing physician in the case of

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which is a combination of Nature's most valuable protein (Casein) with glycerophosphate of sodium, thus acting as a valuable aid in the assimilation of other food and directly nourishing the Nervous System.

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Photographic view of corset on form, showing position of Lastikops Bandlet, which is made of Lastikops Webbing. (Self-Reducing Strap turned back on one side, in position on other side). The centre of each half of the Bandlet is elastic; the ends are non-elastic. The corset-skirt under the Bandlet is a trifle full, thus allowing for the slight expansion and contraction of the Bandlet, whereby ease and freedom from harsh pressure is secured. Lastikops Webbing, our own patented invention, is the only elastic webbing in existence that does not weaken and lose its original elasticity. No other elastic fabric has sufficient durability to warrant its use, without frequent renewal, in any situation requiring constant, certain and equable visceral support.

A splendid *style* corset that also performs a valuable surgical service.

Worn by a great host of women, and warmly recommended by every physician who has examined it. Two models:

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The semi-elastic LASTIKOPS BANDLET in this Corset gives better ABDOMINAL SUPPORT than the best separate abdominal bandage you can buy AT ANY PRICE.

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DR. YOUNG, Chicago's Commissioner of Health, says that the closure of the free city baths will result in a saving of $10,000 in two months. During a year these baths were used by 1,200,000 persons, of 100,000 each month. The pay baths cost at the least 25 cents each, so that the people must pay out of their individual pockets $50,000 to allow the city to save one-fifth of that sum. Bad finance and worse policy. Cleanliness is not only next to godliness, but is directly conducive to morality, as may be realized by anybody who cares to investigate.

THE community, including the doctor, should consult the local banker concerning financial matters, just as the community, including the banker, should consult the local doctor in health matters.—*Medical World*, Aug. 1912.

FOURTH Edition of Backbone. Copyright 1911. Collected from various sources. Arranged and published by S. DeWitt Clough, Ravenswood, Chicago, Ill. Price, 50 cents.

This little booklet is appropriately announced to the profession as "60 Pages of Gloom-Dispelling Philosophy," a good description of its contents. It contains poetical and prose essays for imparting backbone, denounces jelly-spine, encourages pluck, hope, enthusiasm, self-improvement, energetic conduct, perseverance, grit, self-confidence, ambition, earnestness of purpose, promptness, optimism, laughter, thoroughness, development of brain and muscle, persistence, and discourages despair, borrowing trouble, grouch, pessimism, despondency, melancholia, hypochondriasy, lack of faith in our own abilities and resources, unkindness, rudeness, lack of loyalty, disagreeableness,

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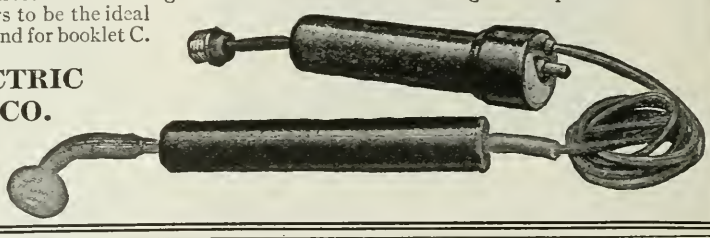

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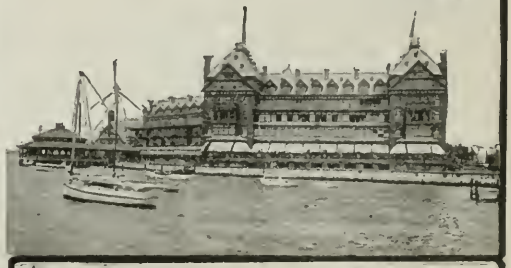

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discouragement, slamming, kicking, knocking, howling, anticipating trouble or crying over spilled milk.

It advises cheeriness, boosting, falling in while the band is playing, smiling at the world, cheering up, being content, being ambitious, industrious, dropping worriment, hustling, accomplishing by continuous stick-to-it-iveness, etc.

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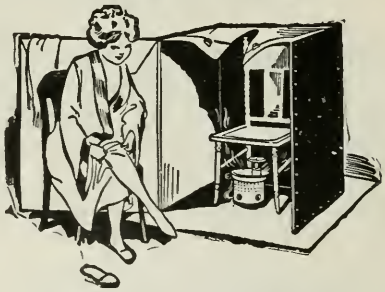

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together with proper medications under the physician's advice, will greatly aid in the restoration of a patient's health. Invaluable for cases of rheumatism, neuralgia, blood, liver and skin diseases.

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Flax turns to oil in the digestive tract. Its action in making easy the elimination of waste is well known to physicians. Wheat is of known nutritive value. These elements make a splendid natural specific, and are in harmony with all schools of medical practice.

The flax from which this food gets its laxative value is the best that can be got. Only selected Durum wheat is used. The celery and the salt are pure ingredients. These elements make a palatable, wholesome, zestful food. Sold by grocers. Samples sent to the profession upon request to

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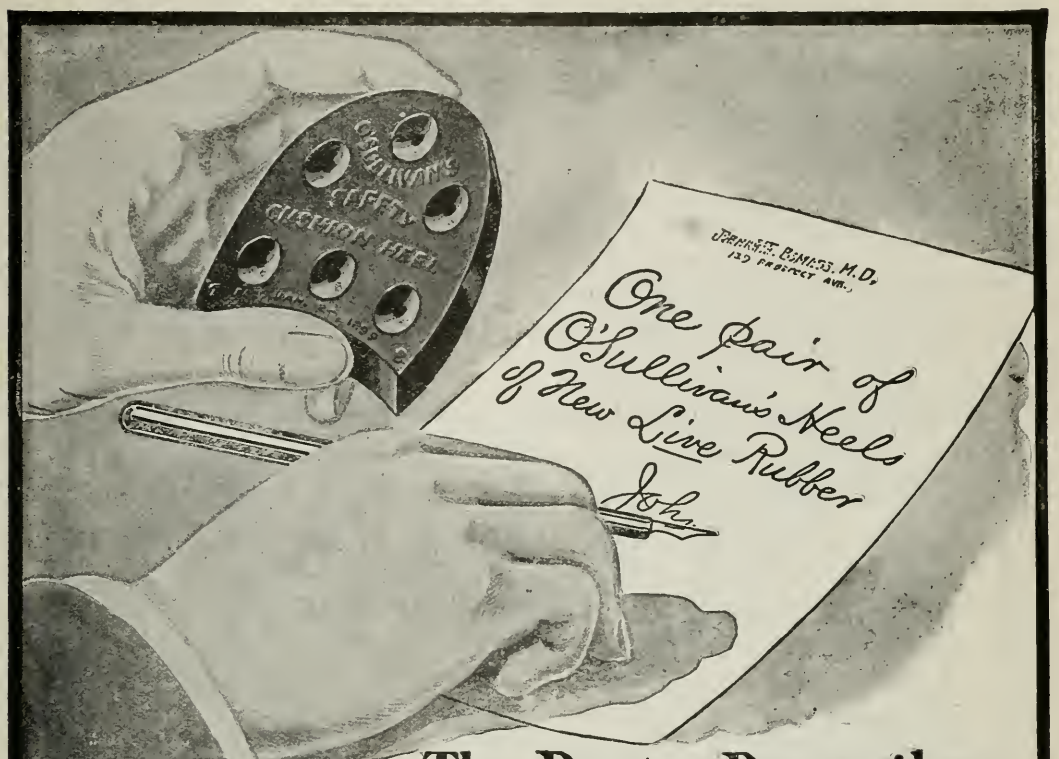

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To Remove the Shock in Walking, To Prevent Spinal Jar and Irritation, and To Reduce Fatigue to a Minimum

How well these are accomplished—especially by O'Sullivan's heels of new live rubber—the thousands of American physicians who wear them can well testify. Made entirely of the purest of new rubber, O'Sullivan's heels eliminate the jar in walking on hard, unyielding surfaces, render the step light and springy, and by reducing the "wear and tear" on the nervous system, go far toward preventing the nervous depression that is recognized as a prominent factor in the causation of many diseases.

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TO THE PHYSICIAN who wants tobacco comfort, to whom a smooth, non-irritating tobacco is essential, Velvet is peculiarly welcome.

Made of the choicest selection of Burley leaf—carefully matured—it attains a mellowness seldom found in any tobacco.

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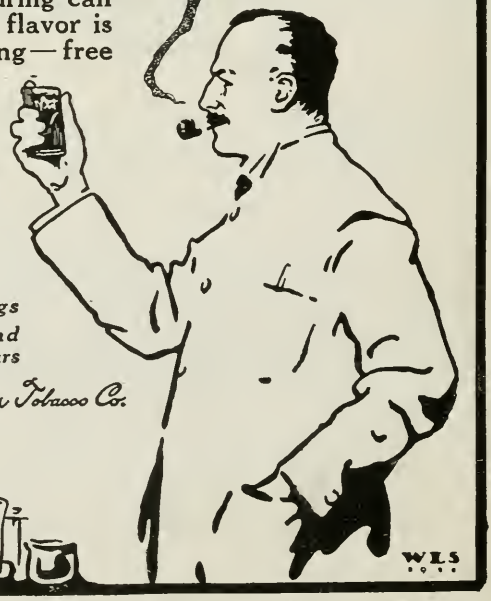

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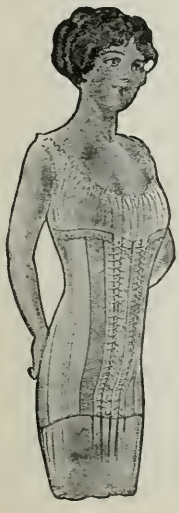
NO CORSET CRITICISM from Physician or Patient when they use

The Goodwin Surgical Corset



BECAUSE It always affords the right kind of support at the right points. EFFECTIVELY BRACING the abdominal walls.

Respiration not impeded and functions of the abdominal organs not hampered in the slightest. (Front or back laced).

PREVENTS PROLAPSE of the flaccid organs, retaining them in their normal positions.

ABSOLUTE COMFORT ASSURED, together with graceful normal carriage.

The **GOODWIN Maternity Model** deserves special mention since it has been found by countless physicians to be the most practical and efficient means of preventing dragging or prolapse without the slightest constriction at undesirable points. Made from the finest and best wearing material, these corsets insure, moreover, a perfect fitting support that retains its shape indefinitely.

The **GOODWIN** is sold only by exclusive corsetieres. We will gladly send address of nearest shop upon request, where physicians may send their patients with every surety that they will receive the closest and most careful attention. Write for splendidly illustrated catalogue.

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WANTED—DOCTOR FOR GOOD TOWN. NOTHing to sell. Also $4000 practice for sale. Fixtures $800. Excellent roads, collections 99 percent, no competition. Will stand closest investigation. Address Box 25, Cassoday, Kans.

FOR SALE—$4000.00 CASH PRACTICE IN ONE OF the best small towns in central Illinois. Price right, terms reasonable. Introduction. Going into banking business. Address No. 1175, care A. J. of C. M.

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Many people, and perhaps a few physicians, are inclined to consider the terms "tonic" and "stimulant" as more or less synonymous and interchangeable. This, of course, is not the case, although some agents employed medicinally may partake of the properties of both and be properly known as "tono-stimulants." Strychnia, for instance, is a heart stimulant but may also be considered as a general nerve and systemic tonic when given in small and frequently repeated doses. While a stimulant alone is sometimes indicated in conditions of emergency its long continuance almost certainly produces an after-depression. It is sometimes advisable, however, to give stimulant and tonic together in conditions of serious general depression, the first to "boost" the vitality and the second to hold it at the point to which it has been raised and to restore the general tone of the organism. An ideal combination of this nature is Pepto-Mangan (Gude) to which has been added the proper dose of strychnia, according to indications. This combination is especially serviceable in the convalescence of exhausting diseases, such as Typhoid Fever, Pneumonia, La Grippe, etc. It is also of much value when the heart needs support and the general system requires upbuilding. Pepto-Mangan restores vitality to the blood by increasing the number of red cells and the percentage of hemoglobin, and the strychnia assists in rendering the combination a peculiarly efficient general bracer and permanent reconstituent.

THE DOCTOR

No higher, holier gift than thine,
To mortal frail is given—
To heal the ills of fallen man,
A gift of Highest heaven.

And He who taught the healer's art,
When footsore, lone and weary,
Shall guide thy hand, direct thy heart,
In byways dark and dreary.

And should thy gift by sin be sought,
To mar God's work so fair,
May lustrous gold to thee be naught—
Oh shun the tempter's snare!

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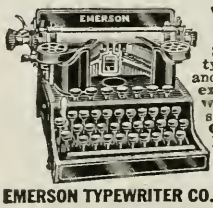

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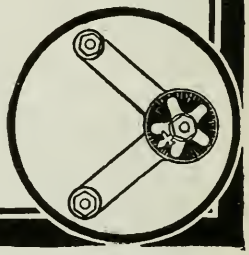

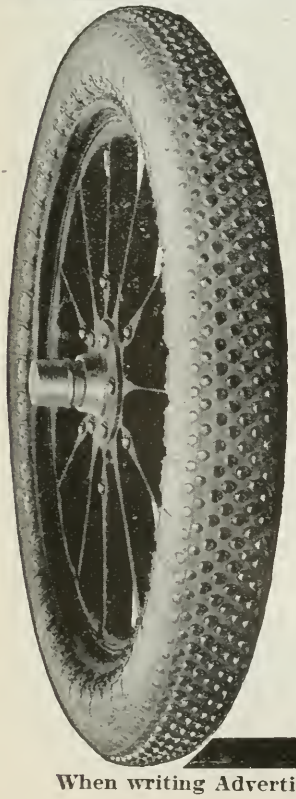

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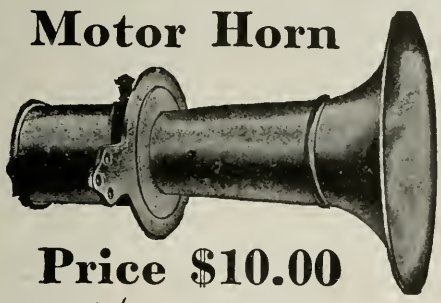

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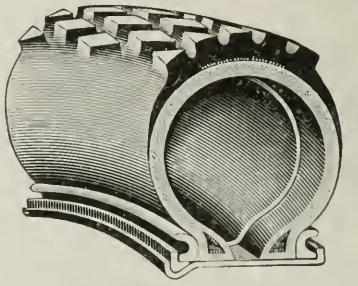

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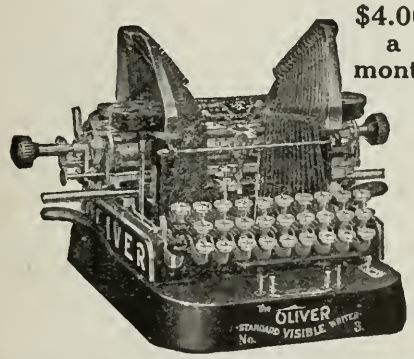

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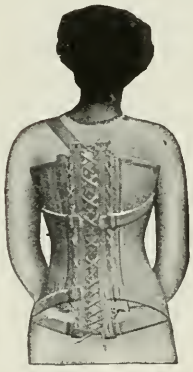

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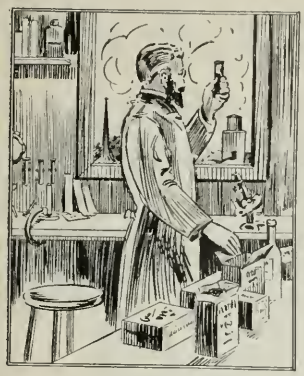

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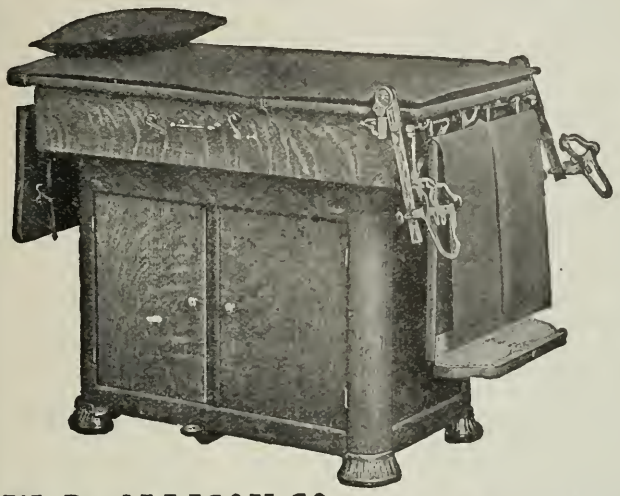

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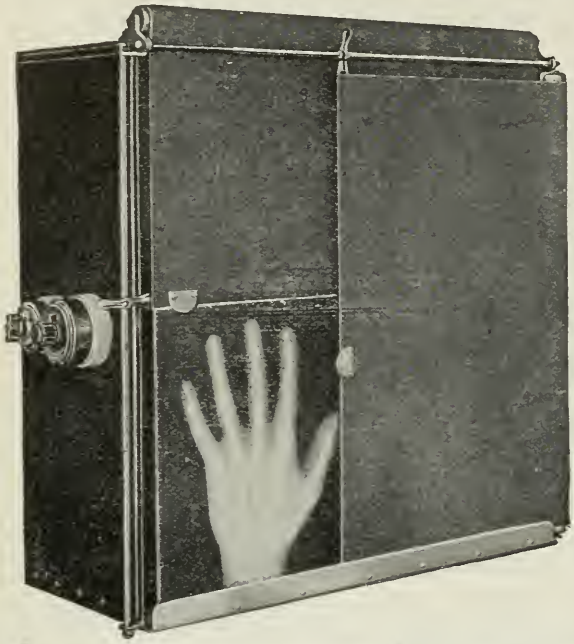

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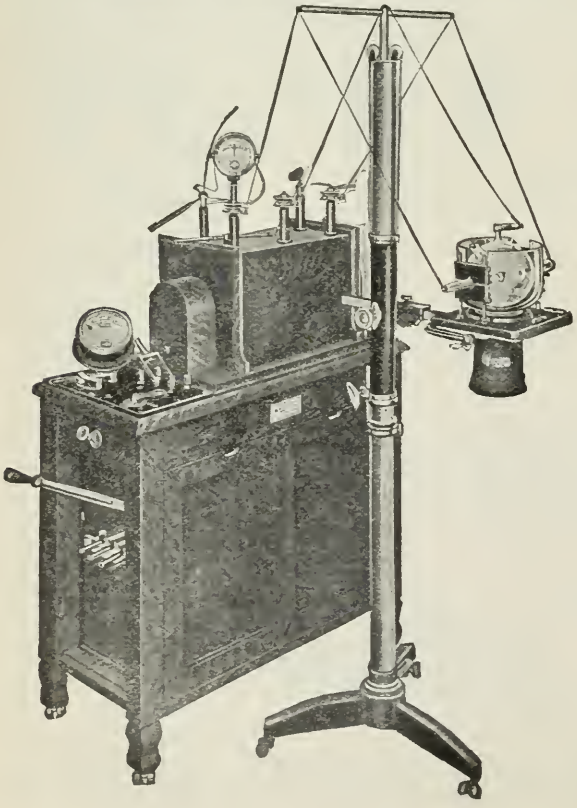

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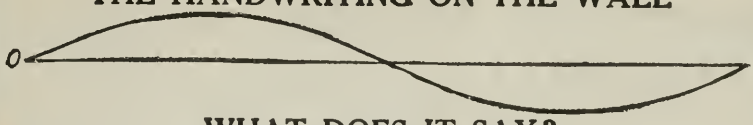

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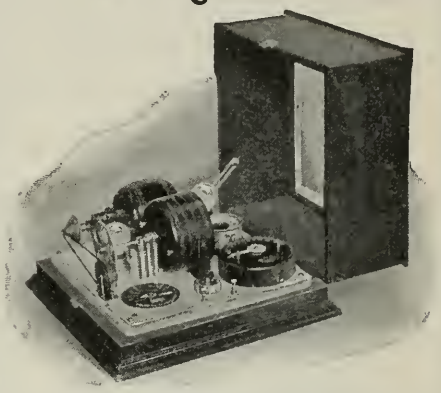

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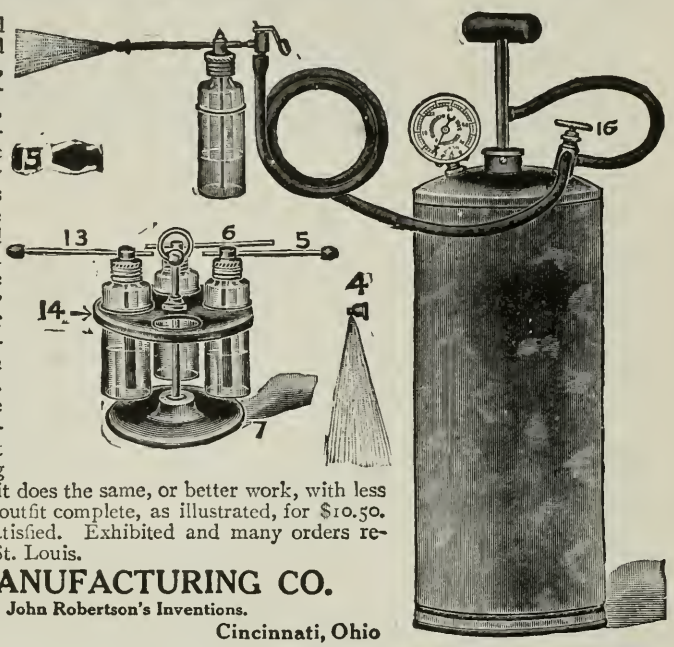

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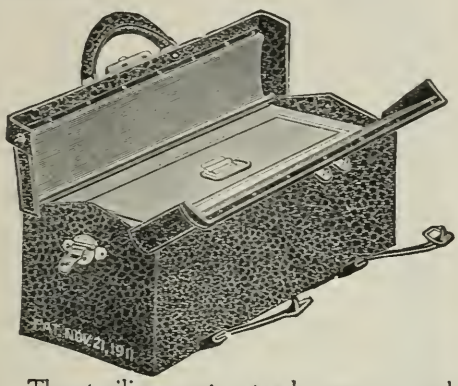

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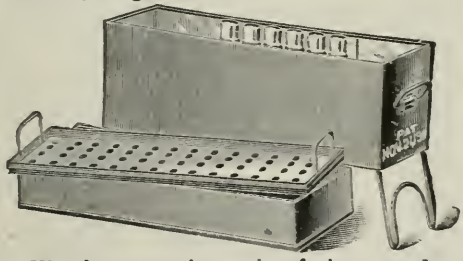

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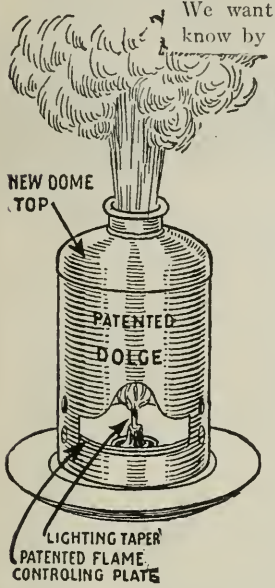

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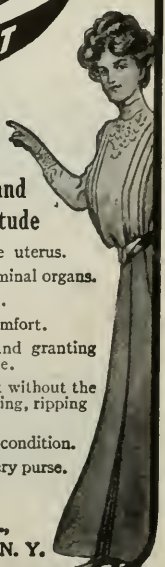

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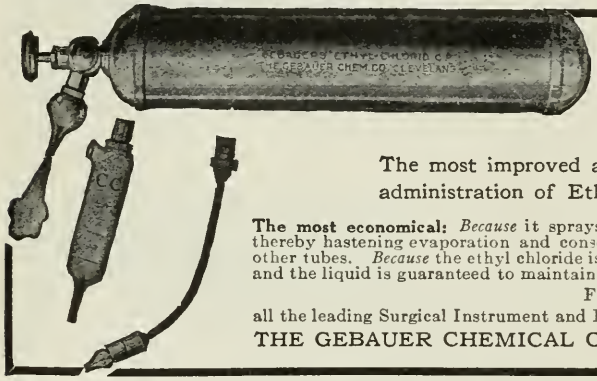

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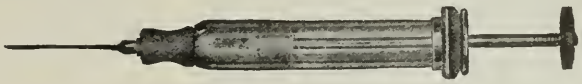

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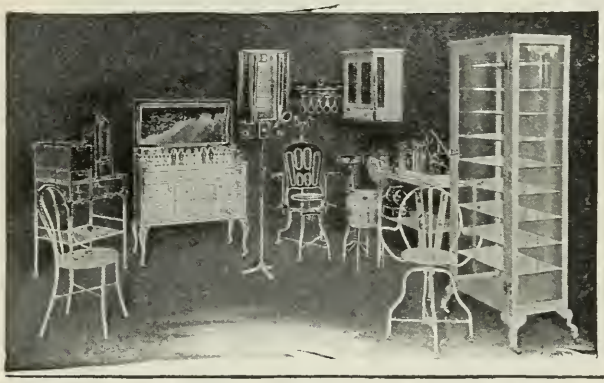

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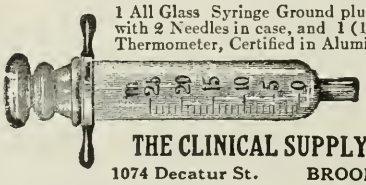

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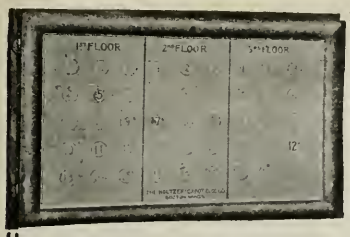

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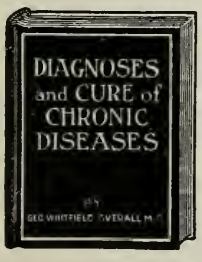

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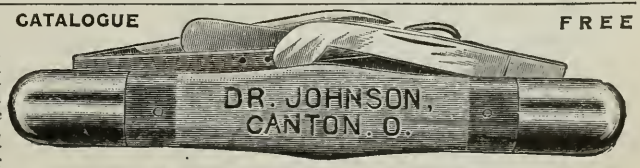

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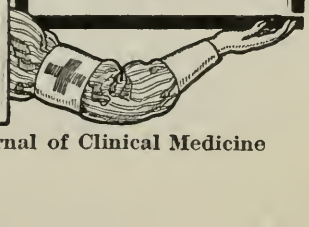

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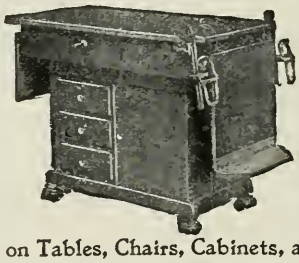

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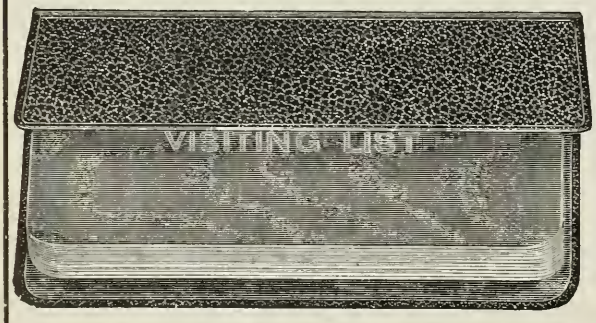

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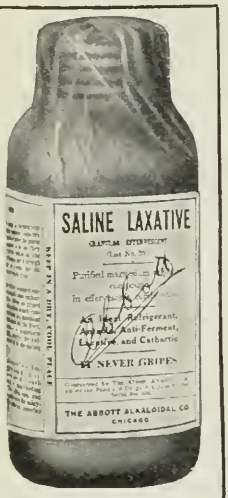

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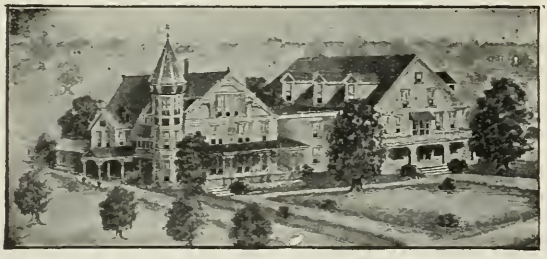

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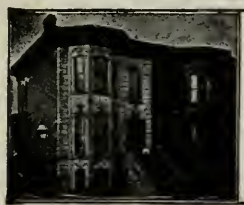

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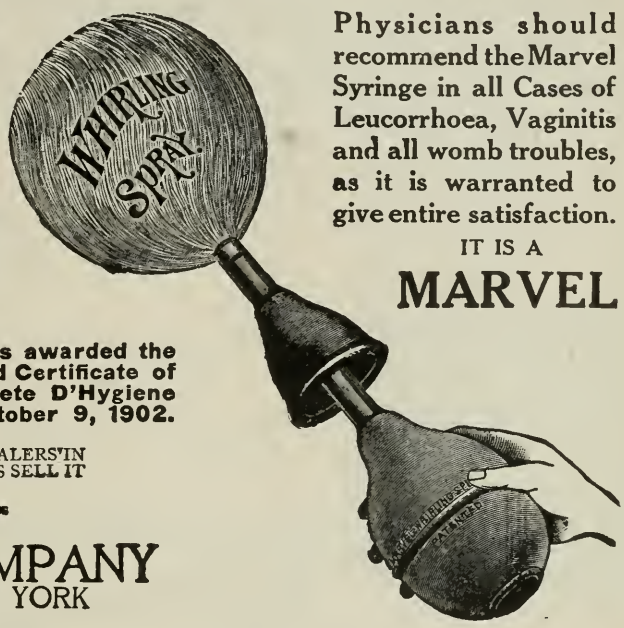

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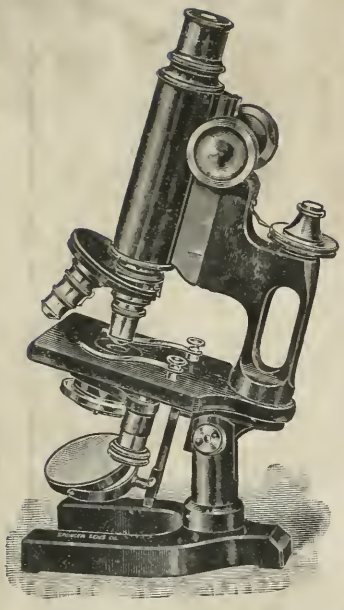

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(COMPLETE)

"Aseptikons" (formerly known as Chinosol Suppositories) possess greater antiseptic strength than bi-chloride, but non-poisonous, non-irritating, no injury to membranes. Indicated in cervicitis, leucorrhea, specific and non-specific vulvo-vaginitis, in all cases where complete vaginal antisepsis is desired.

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